STRESS, STRENGTH, WORK, HOPE

Washington Adults' Answers about Life/Work Experience

Washington State Family Policy Council

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DRAFT Report for the Washington State Division of Vocational Rehabilitation

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Executive Summary

This report explores important aspects about the life experiences of adults in Washington State with disabling conditions that interrupt daily activities, including work. The report offers a window into the impacts of cumulative stressors on employment and daily functioning. The analysis also illuminates contextual, capacity and resilience factors that improve the likelihood of employment.

The Family Policy Council is providing this document to the Division of Vocational Rehabilitation (DVR) to assist DVR with needs assessment and planning, strategic partnership development, and development of innovative approaches to improve the employability and employment status of people with disabilities in our state.

Information in the report is based on an analysis of the Washington 2009 and 2010 Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is conducted in all 50 states, the District of Columbia, and three territories. The BRFSS is a random telephone survey of non-institutionalized adults, age 18 and older using disproportionate stratified sampling. The data used in this report includes answers to BRFSS core questions, the Adverse Childhood Experience module developed by the CDC, and additional questions that were developed within, and added by, the State of Washington.

These added questions make Washington the only state in the nation with this information about the relationship between disabling conditions, adverse childhood experience, history of homelessness or incarceration, functional impairment, labor market, resilience, contextual factors, and employment. This unique set of data provides insight that can help improve the employability and employment status of people with disabilities in our state.

Major Findings

1. Among people with disabilities, unemployment is highly correlated with lost days of functioning –and not significantly correlated with their disabling condition. This is good news – as people more consistently engage in usual daily activities through targeted supports, the likelihood of employment, is improved.

2. People with disability-related impairment in daily functioning (disability score) are more likely to have a history of Adverse Childhood Experiences (ACE). Fifty two percent (52%) of disability-related impairment in daily functioning is attributable to Adverse Childhood Experiences (ACEs).

3. People with disability-related impairment in daily functioning (disability score) are more likely to have experienced major adversities in adulthood than people without disability. Adult homelessness, incarceration, work-related injury or illness, separation/divorce, chronic illness and severe depression are more common among people with disabling conditions.

4. People with a history of adversity and toxic stress both in childhood and also during adulthood are significantly more likely to have a large number of days each month when they cannot do their normal work/life activities. This loss of functioning is hard to overcome in terms of employment.

5. Social & emotional support, feeling fortunate in life, and hope for one's future are powerful resiliency factors for overcoming unemployment among adults with disabling conditions. These

resiliency factors have a compounding effect – when high levels of all three are present, the rate of unemployment drops for a large portion of adults with disabling conditions.

6. Communities can be more or less effective in solving problems and supporting resiliency. In communities with high capacity for coming together to address important issues, people with disabilities are more likely to be employed, even in bad labor markets. Young adults living in communities that have consistently scored high on the Family Policy Council Community Capacity Index (1998 -2009) have better than predicted rates of having:
   - More than a high school education,
   - An ACE score less than 3,
   - Few days per month when a disabling condition kept them from doing usual daily activities, and
   - Higher resiliency scores.
7. Community variation is vast in Washington. The prevalence of disability-related factors that affect employment success is not uniform across the state, or across any "type" of county.

Implications for DVR

These findings highlight the role of toxic stress and resiliency in the employability of people with a broad range of disabilities. The prevalence of disability-related factors that affect employment success is not uniform across the state, or across any "type" of county. A community-specific constellation of barriers to employment may be powerfully addressed through a combination of usual DVR best practices plus locally-tailored action. A wider circle of people can offer different perspective and insight, increase community capacity, normalize a culture of inclusion and accommodation, boost commitment from potential partners, and expand creative problem solving – all of which could advance the DVR mission. This report offers ideas about both the meaning and potential use of the data to improve outcomes. These ideas are not a set of recommendations for DVR to implement, rather they are intended to provide a platform from which DVR can launch dialogue, design improvements, and strengthen the DVR system.

Washington's Division of Vocational Rehabilitation has a well-earned reputation for leading our nation in effective, strategic and informed action to help people with disabilities succeed at work. The data analyzed and presented in this report suggests that DVR consider building on current strengths using five broad strategies:

1. **Partner with communities to attract and retain young people as DVR customers**. The first decade of adulthood is when people are at tremendous risk for adult adverse experiences like homelessness, incarceration, separation, divorce, severe depression, and onset of mental illness. This same decade is when young people often become parents. Lack of employment opportunities during this phase has a strongly negative impact on future employability. DVR services during this decade can help to avoid these adversities, and thereby reduce the complexity of disability-related impairments throughout the lifespan
2. **Conduct targeted outreach and intensify services to parenting adults with moderate to mild Disability Score.** Consider investments in face-to-face social networking and peer-to-peer helping systems that focus on emotional support and practical help for parenting adults who are job seeking or employed.

3. **Shift referral and skill building opportunities for customers toward intentionally building community-level social support; measure social/emotional support as a core metric.** Work with communities to develop social support across generations (young person to middle aged person, etc.). Emotional support, social activities and practical help (e.g. childcare, getting groceries, fixing a porch light, etc.) are important components in the kind of resilience that produces job readiness and employment stability.

> ***In the seven-month DVR pilot initiative with Family Policy Council Community Networks, Networks found that people absolutely love the DVR mission, strategy, tactics and customers – before the pilot, many people simply didn't understand DVR. Understanding DVR leads to improved word-of-mouth outreach, business interest in employing people with disabilities, and improved supports for DVR customers.***

4. **Invest in professional development for job coaches, peer group, and VR counselors to ensure trauma-sensitive services and service environments.**
5. **Use the findings in this report as a call to action. Convene dialogues that invite a wider circle of partners into DVR work.** Expand leadership across sectors, classes, cultural groups and professional disciplines.

Recommendations

Findings from this analysis can be used to improve*:*

1. Strategic outreach
2. Assessment & referral
3. Individual Plans for Employment – improve the fit between life experience and accommodation/skill building
4. Partnerships to help DVR produce big gains
5. Geographic targeting & tailoring
6. Environmental strategies to augment individual strategies

Introduction

This report describes the life experiences of adults in Washington with disabling conditions that interrupt daily activities, including work, and provides comparison to life experience of people without these conditions. The report offers a window into the impacts of cumulative stressors on employment and daily functioning. The analysis also illuminates contextual and resilience factors that improve the likelihood of employment

The Family Policy Council is providing this document to the Division of Vocational Rehabilitation (DVR) to assist DVR with needs assessment and planning, strategic partnership development, and development of innovative approaches to improve the employability and employment status of people with disabilities in our state.

Information in the report is based on an analysis of the Washington 2009 and 2010 Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is conducted in all 50 states, the District of Columbia, and three territories. The BRFSS is a random telephone survey of non-institutionalized adults, age 18 and older using disproportionate stratified sampling. The data used in this report includes answers to BRFSS core questions, the Adverse Childhood Experience module developed by the Center for Disease Control and Prevention (CDC), and additional questions that were developed within, and added by, the State of Washington. Because of the added questions, Washington is the only state in the nation with this information about the relationship between disabling conditions, adverse childhood experience, history of homelessness or incarceration, functional impairment, labor market, resilience, contextual factors, and employment. This unique set of data provides insight that can help improve the employability and employment status of people with disabilities in our state.

This report includes discussion of each of these categories, including data to inform planning and action, related research findings, examples of action to consider, and questions that, if pursued, could result in a more powerful DVR plan and action agenda.

Measurement

Behavioral Risk Factor Surveillance System Data

Information in the report is derived from analysis of combined data from the Washington 2009 and 2010 Behavioral Risk Factor Surveillance System (BRFSS). Two years of data are combined in order to increase the number of responses (n) to each question and thereby improve accurateness of findings and allow for disaggregation of the data to produce information about sub-population groups and communities.

The BRFSS is our nation's premier health surveillance system, sponsored jointly by the Centers for Disease Control and Prevention and each state's health department. All of the questions used in the BRFSS, whether provided by the CDC, or added by the state, have been tested for reliability and validity. Several scales from the BRFSS were used in this analysis. Each scale is described in detail below. (See Attachment 2 for a list of questions used in this analysis).

The Kessler Psychological Distress Scale (K-6 scale). This scale consists of 6 questions that were added to the BRFSS by the state of Washington in 2009 and 2010. The K6 scale was "developed with support from the U.S. National Center for Health Statistics for use in the U.S. National Health Interview Survey (NHIS). The scales were designed to discriminate nonspecific distress from cases of serious mental illness (SMI). A small validation study carried out in a convenience sample in Boston found evidence that the scales perform quite well for the purpose of discriminating between cases and non-cases of SMI (Kessler et al., 2003)[i]." The K6 is now included in the core of the NHIS as well as in the annual National Household Survey on Drug Abuse.

The Adverse Childhood Experience Module. This standardized module was developed by the Centers for Disease Control and Prevention (CDC). The ACE module consisted of 11 questions that yielded eight categories of ACEs (i.e., verbal abuse, physical abuse, sexual abuse, household mental illness, household substance abuse, domestic violence, parental separation/divorce, and incarcerated family members). In 2009 and 2010 the ACE module was added to the Washington BRFFS. Other state health departments are now also using these questions. (http://www.cdc.gov/brfss/questionnaires/pdf-ques/2009brfss.pdf)

The ACE data in the 2009 Washington ACE BRFSS module are available because the strength of the ACE Study findings led to numerous activities by the Washington Family Policy Council, which in turn, resulted in grants from the *Pacific Northwest Initiative of the Bill and Melinda Gates Foundation*, *Committee for Children and Families of Incarcerated Parents, the Mental Health Transformation Grant Prevention Advisory Group, and Project Launch* to support the data collection and analysis. The purpose of data collection in the Washington BRFSS is to document the public health and social burden of ACEs on a population scale.

> *"The key concept underlying the ACE Study is that stressful or traumatic childhood experiences such as abuse, neglect, witnessing domestic violence, or growing up with alcohol or other substance abuse, mental illness, parental discord, or crime in the home (which we termed adverse childhood experiences—or ACEs) are a common pathway to social, emotional, and cognitive impairments that lead to increased risk of unhealthy behaviors, risk of violence or re-victimization, disease, disability and premature mortality. We now know from breakthroughs in neurobiology that ACEs disrupt neurodevelopment and can have lasting effects on brain structure and function—the biologic pathways that likely explain the strength of the findings from the ACE Study.*
>
> *"The ACE Study showed that these experiences are highly interrelated. This is also the case for the population of the State of Washington. In order to assess the relationship of the ACEs to health and social problems in this report we used the ACE score. This score is a count of the number of ACEs to assess their cumulative impact on childhood development and therefore, their impact on a variety of health and social priorities. In this report you will find that the ACE score has a strong, graded relationship to a wide array of health and social problems in Washington.*

"The ACE score provides a strong conceptual and empirically valid framework for measuring the cumulative exposure to toxic stress during childhood. Recent understanding the effects of traumatic stress on neurodevelopment provide strong biologic plausibility for this approach. Experimental animal models and case-control studies in humans have linked childhood maltreatment to long-term changes in brain structure and function involving multiple brain structures and functions. Childhood adversity also leads to lasting alterations in central nervous system stress response, and these lasting effects on the brain affect numerous human functions into adulthood, including emotional regulation, somatic signal processing, substance abuse, sexuality, memory, arousal, and aggression.

"The relationships of the ACE score to a wide range of health, emotional, and social outcomes have been described. It is noteworthy that the use of the ACE score as a measure of the cumulative exposure to traumatic stress during childhood is consistent with more recent understanding, from the neurosciences of the effects of traumatic stress on neurodevelopment. Neuroscientists have linked childhood maltreatment – using experimental animal models as well as case-control studies in humans – to long-term changes in brain structure and function, involving several inter-connected brain regions including the prefrontal cortex, hippocampus, amygdala, corpus callosum, and cerebellum. Early stress is also associated with lasting alterations in stress-responsive neurobiological systems, including the hypothalamic-pituitary-adrenal axis and monoamine neurotransmitter systems; these lasting effects on the developing brain would be expected to affect numerous human functions into adulthood including (but not limited to) emotional regulation, somatic signal processing (body sensations), substance abuse, sexuality, memory, arousal, and aggression.

"Numerous publications have documented a graded or 'dose-response' relationship between the number of categories of ACEs (ACE score) and a wide variety of health and social problems of national importance. [Dr. Robert Anda] considers the 'dose-response' findings quite literally; the ACE score appears to capture cumulative exposure of the developing brain to the activated stress response, which is the pathway by which ACEs exert their neurobiological impact. ***This 'dose response' relationship is evident in the figures that follow in the next section; as the ACE score goes up, so does the risk of problems from adolescence to adulthood****."*

- (Anda & Brown, 2010)[ii]

Family Policy Council Data

Community Capacity Index: Community capacity was rated every other year by a set of external reviewers based on reports submitted to the Family Policy Council. A community capacity index was computed by averaging the independent ratings of the different reviewers across the four dimensions: leadership expansion, coming together, learning and opportunity, and results for improvement (See Attachment 3). An analysis of recent ratings showed good inter-rater reliability among the reviewers. A summary measure was also computed: an average capacity measure, averaging the past five capacity indexes - used to calculate the correlation of overall community capacity achieved with the number of better-than-state trends from 1998 to 2006.

Indicators Used in This Report

For the purposes of this report, we excluded from the analysis people under 18 and over 64 years of age, and individuals who reported that they could not work. Including only working-age adults (18-64) who said they could work, we used the following definitions in the analyses:

Disabling Condition is indicated by:

a) Report having a disability and/or
b) Report using special equipment for a disability, and/or
c) A score on the Kessler Scale, indicating moderate or severe and persistent mental illness

Low Disability Score is indicated by the interviewee reporting:

a) Having a disabling condition, and
b) 1-14 of the last 30 days when the disabling condition kept them from doing usual daily activities

Moderate Disability Score is indicated by the interviewee reporting:

a) Having a disabling condition, and
b) 15-29 of the last 30 days when the disabling condition kept the person from doing daily activities

Severe Disability Score is indicated by the interviewee reporting:

a) Having a disabling condition, and
b) All of the last 30 days when the disabling condition kept them from doing usual daily activities

Functional Impairment means low, moderate, or severe disability score.

Parenting is indicated by having one or more children, age ≤17 living in one's household

Resilience Scale is calculated using a 12 point scale indicated by:

a) Report feeling hopeful (all or most of the time) – 4 points
b) Report feeling fortunate (getting the things in life most important to him/her) – 4 points
c) Report usually or always receiving social and/or emotional support (always or usually) – 4 points

Low Resilience Score is indicated by less than9 points on the Resilience Scale
High Resilience Score is indicated by 10 or more points on the Resilience Scale

ACE Score means the number of categories of Adverse Childhood Experience (ACE) reported (range from 0-8). The ACE categories in the BRFSS are: physical abuse, sexual abuse, emotional abuse, witnessing violence against a household member, having a mentally ill, depressed or suicidal person in the home, incarceration of any family member, parental separation or divorce, and having a drug addicted parent or care giver.
Low ACE Score is indicated by 0-2 ACEs
Mid ACE Score is indicated by 3-5 ACEs
High ACE Score is indicated by 6-8 ACEs

Community Capacity is the ability of a community to sustain programs and also to identify new community problems as they arise, and develop ways of addressing them. It is a dynamic process that enhances the infrastructure, skills, and motivation of a community – changing the way we live with one another day-to-day.[iii]

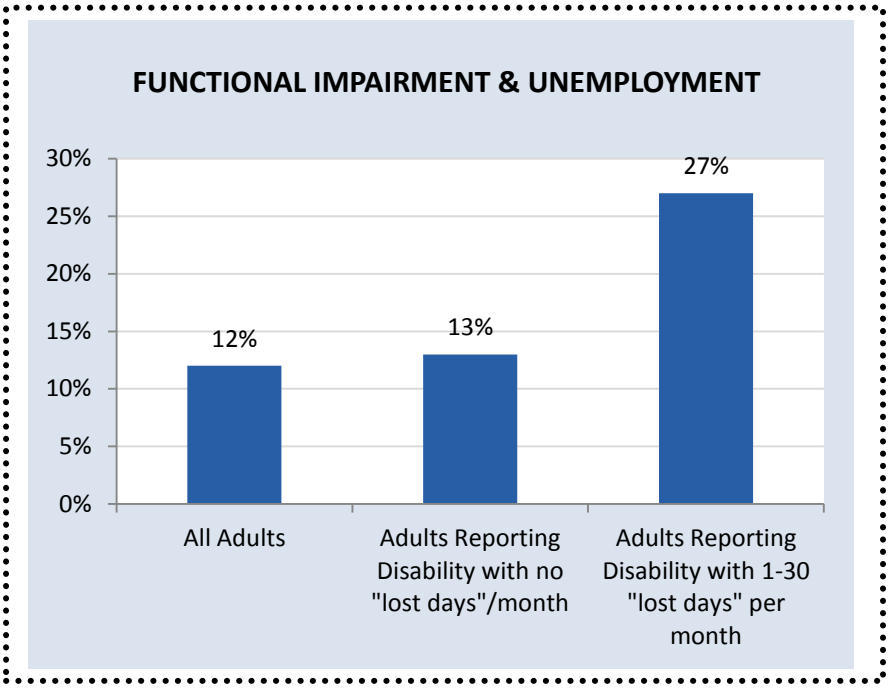
High Community Capacity Area is a county or community that has sustained high scores on the Family Policy Council Community Capacity Index from 1998 to 2009.

Findings

Functional Impairment & Unemployment

1. **Among people with disabilities, unemployment is highly correlated with lost days of functioning – and not significantly with only the disabling condition.**

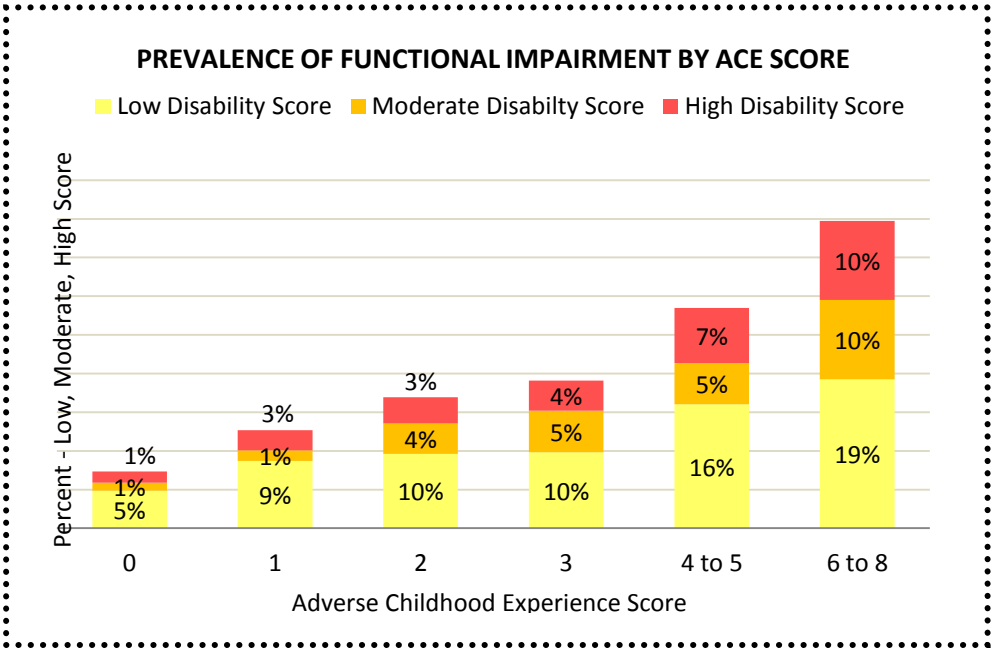
This is good news – as people gain supports to more consistently engage in usual daily activities, the likelihood of helping people to become employed is improved.
The rate of unemployment is elevated for the group with disability-related functional impairment (27%); while the unemployment rate is only 13% for those without functional impairment.



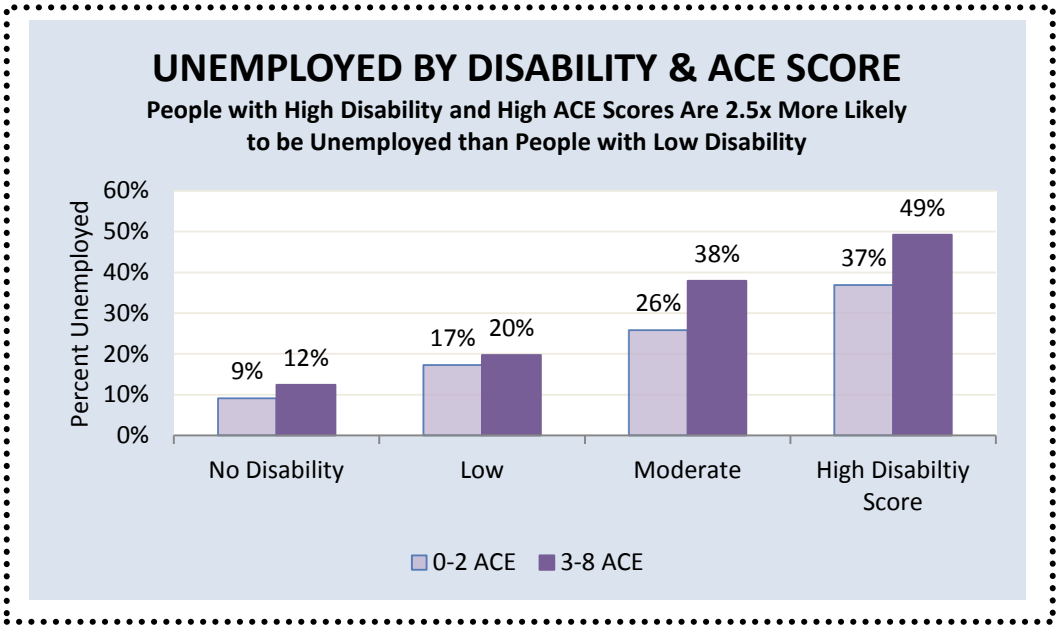
Functional Impairment & ACE Score

2. **People with disability-related impairment in daily functioning (disability score) are more likely to have a history of Adverse Childhood Experience (ACE).**

Fifty two percent (52%) of disability-related impairment in daily functioning is attributable to Adverse Childhood Experiences (ACEs). There is a strong graded relationship between ACEs and disability score – the higher the ACE score, the higher the likelihood of low, moderate and high disability score. ACE score is highly correlated with mental, physical, and behavioral health, work related injury and illness, and other factors discussed in this report.



The cumulative effects of both disability-related functional impairment plus a history of ACE is a powerful predictor of unemployment. People with high disability score and high ACE score are 2.5 times more likely to be unemployed that those with low disability.



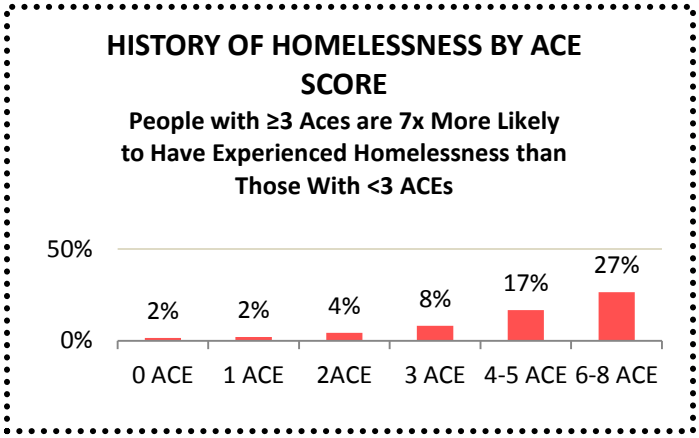
Functional Impairment & Major Adversity

3. **People with disability-related impairment in daily functioning are more likely to have experienced major adversities in adulthood than people without disability.** Adult homelessness, work-related injury and illness, incarceration, separation and/or divorce, severe depression, and chronic illness are more common among people with disabling conditions.

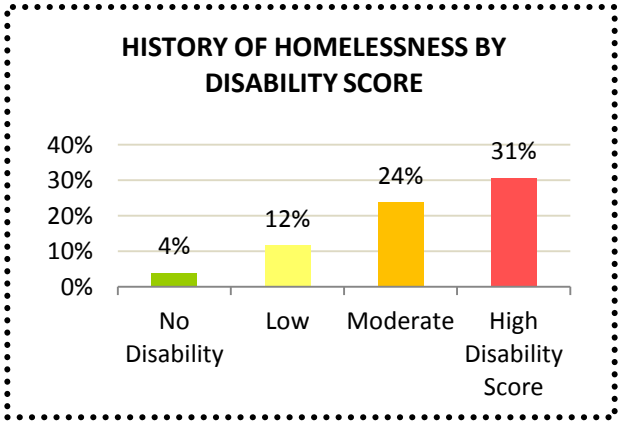
Major Adversities during Adulthood – Snapshots by Adversity

Adult Homelessness

People with high disability scores are eight times more likely to have a history of adult homelessness than people without disability-related functional impairment. People with high disability scores have experienced adult homelessness at twice the rate as people with low disability scores.



Many of the factors known to contribute to homelessness are also highly correlated with disability score. There is a strong graded (dose-response) relationship between Adverse Childhood Experience and adult homelessness. The National Coalition for the Homeless reported in 2009 on shortage of housing and increasing family poverty as trends affecting homelessness. Other factors they noted are multi-generational markers of Adverse Childhood Experience: domestic violence, mental illness, & addiction disorders. *(National Coalition for the Homeless, July, 2009)*[iv]

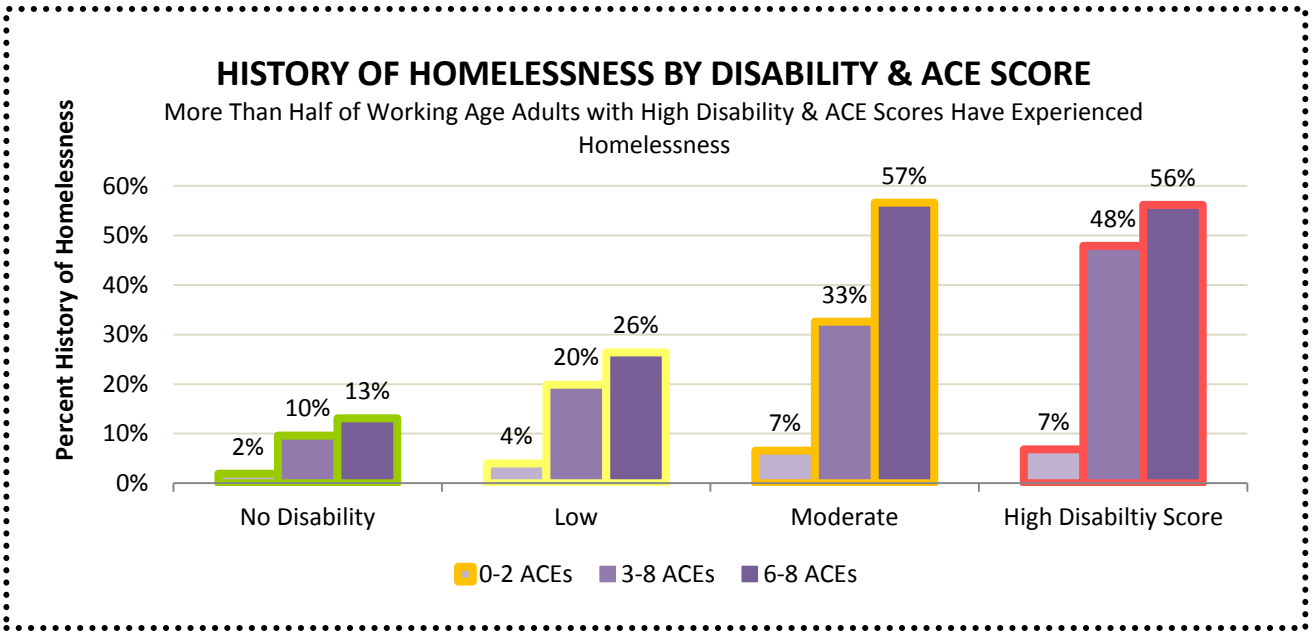


Homelessness, Poverty and Disability

"Working-age Americans with disabilities are more than twice as likely to live in poverty as other Americans, and only half as likely to be employed", said David Stapleton, director of the Cornell University Institute for Policy Research." (Lang, 2005; cited in National Low Income Housing Coalition, 2005)[v]

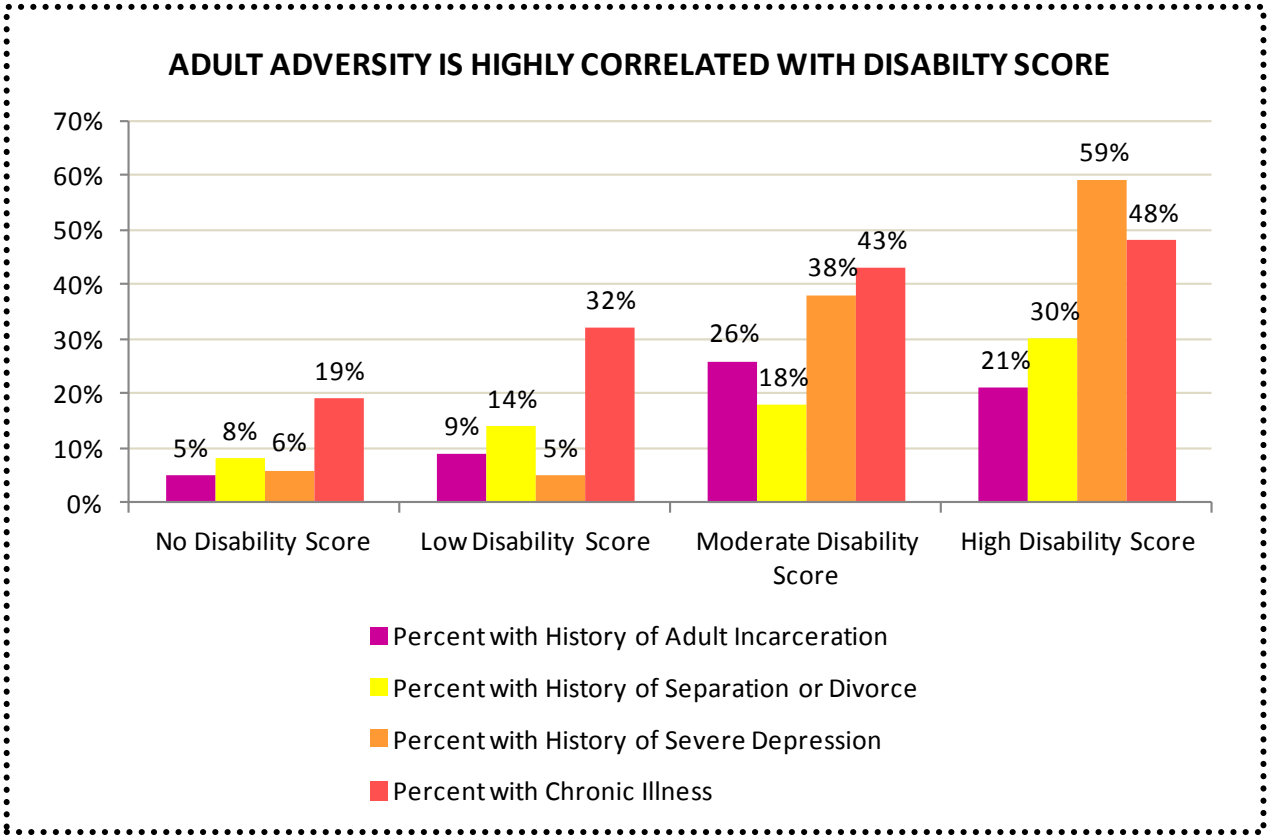
Homeless, Partner Violence, and Disability

Both perpetration of partner violence and becoming a victim of partner violence are highly correlated with Adverse Childhood Experience. A lack of alternative housing often leads women to stay in or return to violent relationships. In Minnesota in 2003, for instance, 46 percent of homeless women reported that they had previously stayed in abusive relationships because they had nowhere to go.[vi] Abusers typically use violence and other strategies to exercise power and control over their partners and to isolate their partners from support networks.



Behavioral Health and Homelessness

Approximately 16% of the single adult homeless population suffers from some form of severe and persistent mental illness. (U.S. Conference of Mayors, 2005 sited in National Council for the Homeless, July, 2009) The relationship between addiction and homelessness is complex and controversial. While rates of alcohol and drug abuse are disproportionately high among the homeless population, the increase in homelessness over the past two decades cannot be explained by addiction alone. (National Council for the Homeless, July 2009)[vii]



Incarceration

People with high disability scores are four (4) times more likely to have a history of adult incarceration than people without disability-related functional impairment. People with high disability scores have experienced adult incarceration at twice the rate as people with low disability scores.

Separation and Divorce

People with high disability scores are nearly four (4) times more likely to have a history of separation or divorce than people without disability-related functional impairment. People with high disability scores have experienced separation or divorce at twice the rate as people with low disability scores.

Loss of a parent due to separation or divorce is one indicator of family stress in the ACE study – it is one of the ten ACEs in the original study. Additionally, developmental neurobiology findings indicate that toxic stress during development can lead to difficulty retaining stable and supportive relationships throughout the lifespan. Thus, separation/divorce is an important population-level indicator of intergenerational transmission of stress. It is statistically related to higher disability scores (lost days of functioning) among adults with disabling conditions. This is not to say that having parents separate or divorce, taken alone, is traumatic; it is the cumulative impact of having multiple kinds of childhood stressors that has a high correlation to problems in adulthood.

Severe Depression

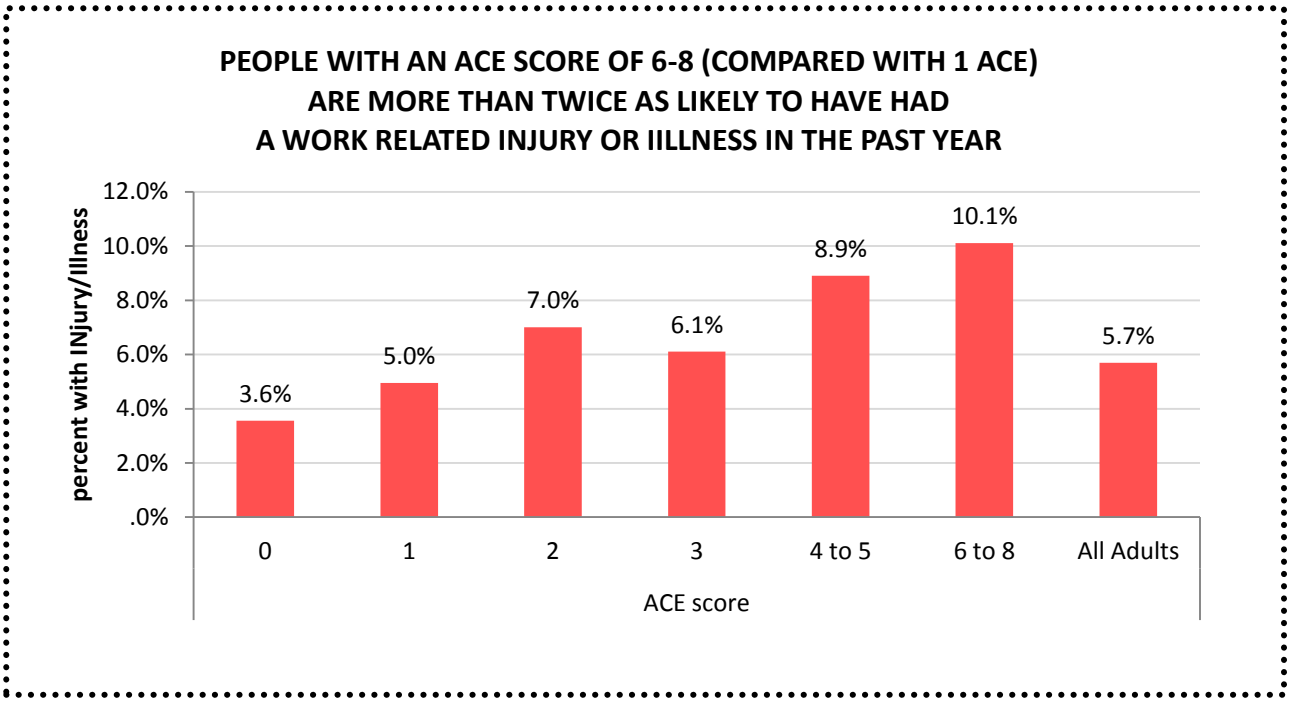
People with high disability scores are twenty eight (28) times more likely to experience severe depression than people without disability-related functional impairment. People with high disability scores experience severe depression at three (3) times the rate as people with low disability scores. This general finding is not due only to those people with mental illness as their disability.

Chronic Illness

People with high disability scores are two and a half (2½) times more likely to experience chronic illness than people without disability related functional impairment.

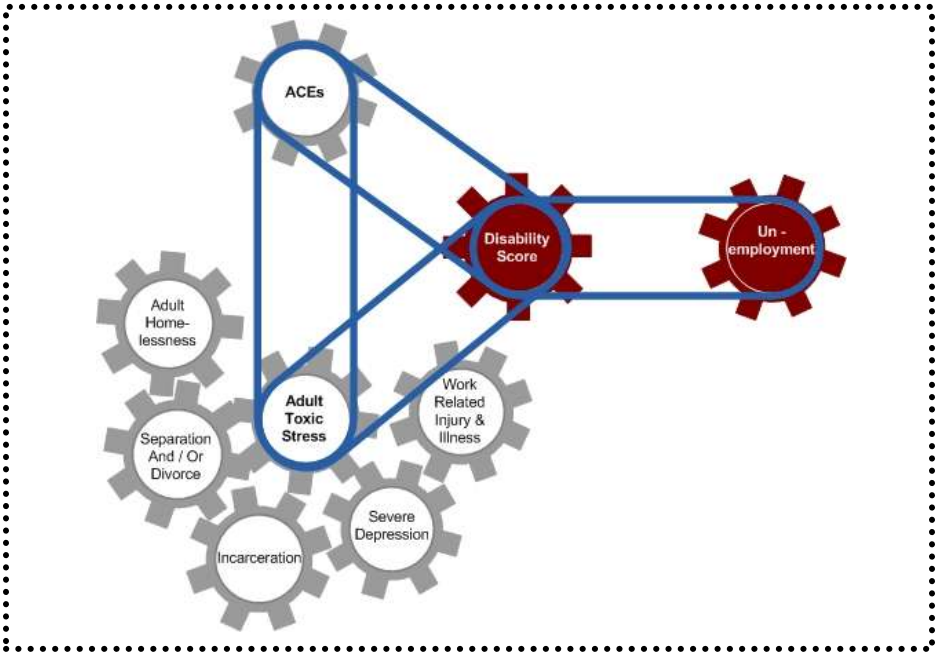
Work-Related Injury/ Illness

Workers in Washington who experienced multiple categories of Adverse Childhood Experience during development (ACE Score) are far more likely than other adults to be hurt on-the-job or to suffer work-related illness. People with an ACE score of 6-8 are more than twice as likely to have work related injury or illness than people who experienced only one ACE category.



Toxic Stress & Daily Impairment

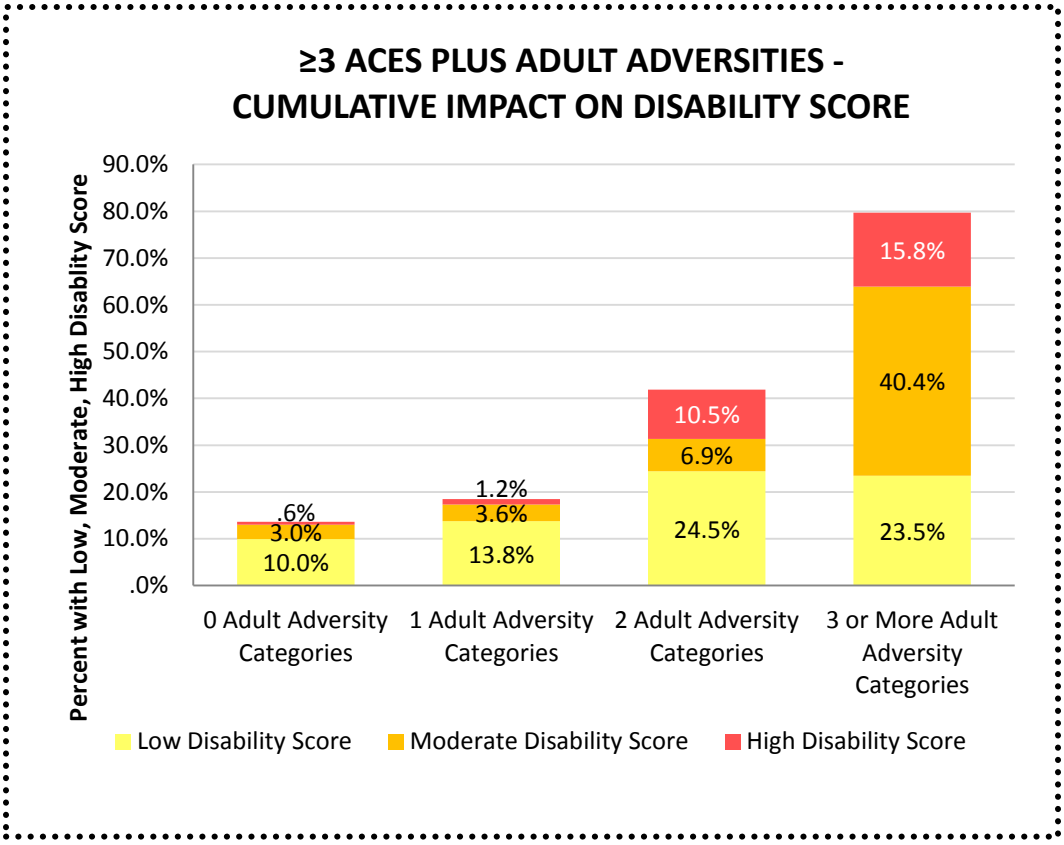
4. **People with a history of toxic stress both in childhood and also during adulthood are significantly more likely to have many days each month when they cannot do their normal work/life activities – represented in this report by the disability score.**



Adult adverse experience interacts with the impacts of Adverse Childhood Experience.

The combination results in more complex symptoms, which are reflected in increased disability score. This chart provides information about adults with 3 or more ACEs. Having a higher ACE score increases the likelihood of adult adversities, including the categories considered in this chart:

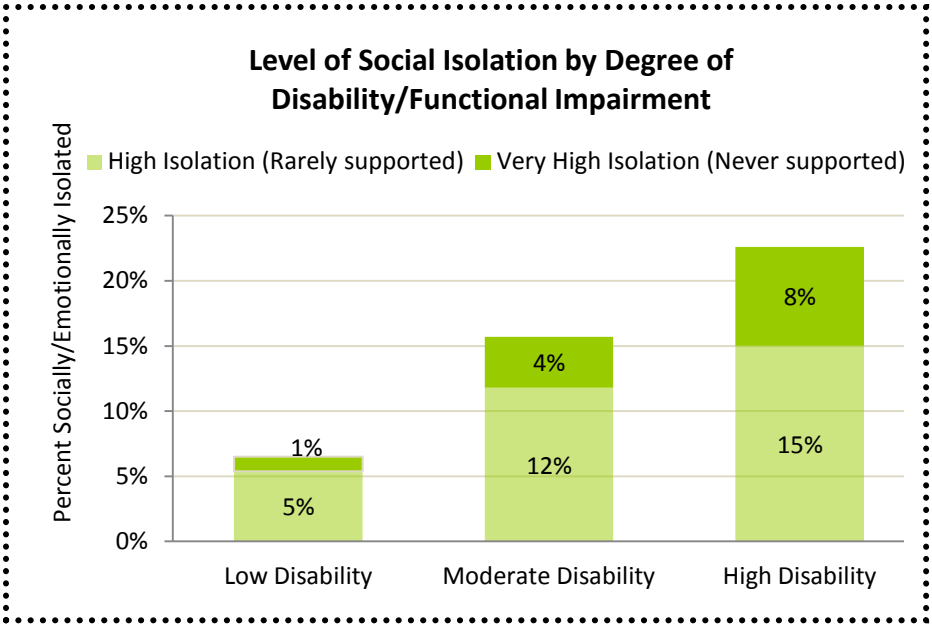
1. Homelessness
2. Incarceration
3. Chronic illness
4. Separation/Divorce
5. Severe Depression
6. Work-related Injury/ Illness



Eighty percent (80%) of the population of adults who have a high ACE score plus a large number of adult adversity categories report interruption in their ability to do their usual activities, including work for one or more days a month. Forty percent (40%) report disability-related interruption to their daily activities for 14 to 29 days a month (Moderate Disability Score).

Social Isolation

One in five people with high disability scores report that they rarely or never get their social/emotional needs met.



This makes some sense because high disability score means that activities are affected every day by their disabling condition. Left to natural social structures, it is unlikely that this will change. Local people must intentionally design drop-in or other opportunities that accommodate deregulated daily schedules so that people with moderate and high disability scores can give and receive social/emotional support and can develop skills, relationships, and insights that build hope for the future.

Resiliency

Introduction to Finding 5:

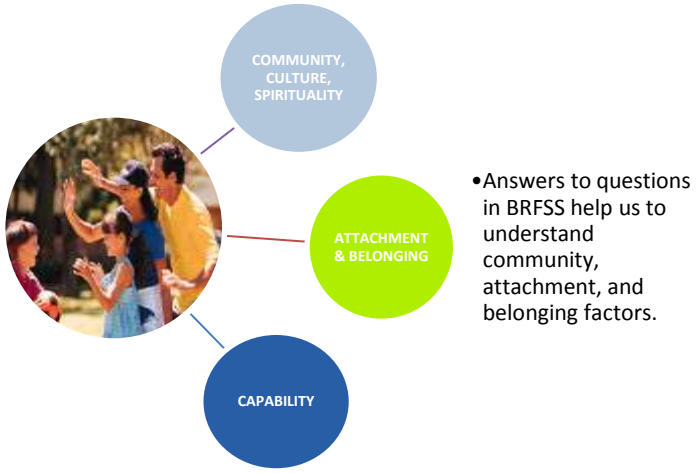
Social and emotional supports are powerful actors in the human journey from toxic stress to a joyful, fulfilling and productive life. Some call this journey resiliency. Scholars in this field have identified three key systems for promoting resiliency in the population: community, belonging, and capabilities.

The 2009 and 2010 BRFSS questions included three indicators of resiliency:

- Social and emotional support
- Feeling fortunate in life
- Hope.

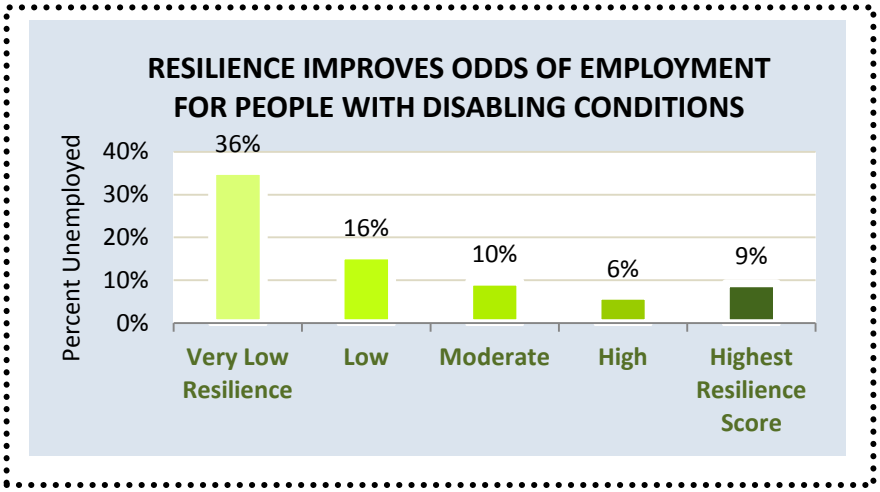
These indicators combine to create the Resilience Score.

THREE SYSTEMS FOR PROMOTING RESILIENCY

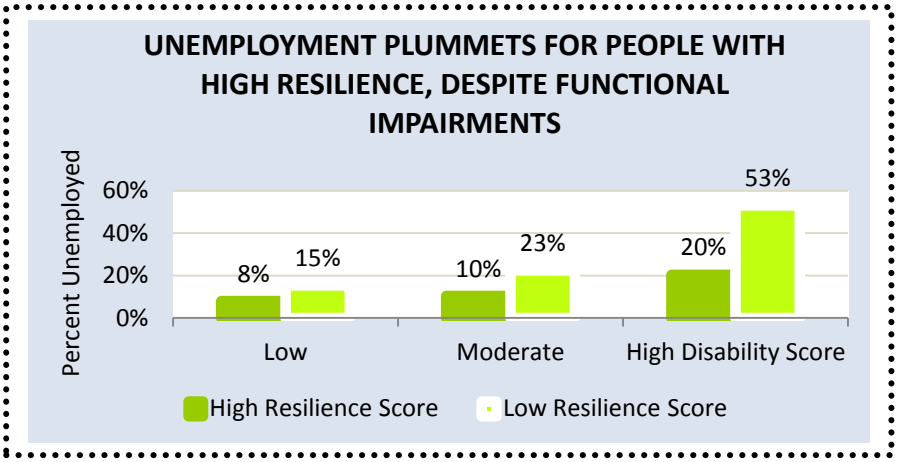


Based on these community and relational indicators, we can gain insights into how increasing social/emotional support and promoting community and relational contexts for increased hope and belonging might affect employment among people with disabling conditions.

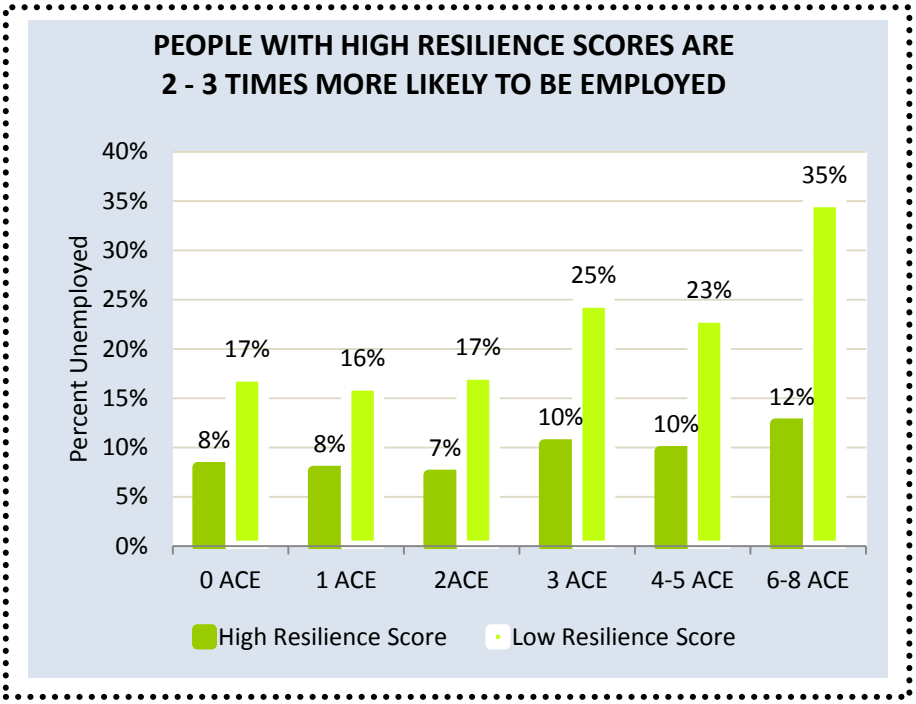
5. **Social & emotional support, feeling fortunate in life, and hope for one's future are powerful resiliency factors for overcoming unemployment among adults with disabling conditions.** People with very low resilience scores are 4X more likely to be unemployed than people with high scores. These resiliency factors have a compounding effect – when people have high levels of all three (high resilience score), unemployment plummets.



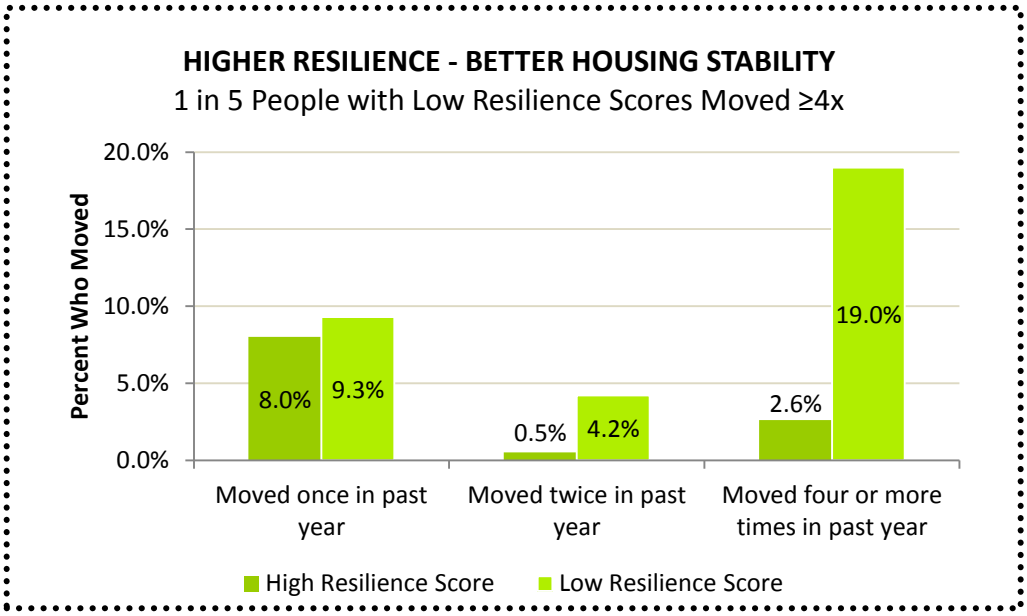
Unemployment among people with low, moderate and high disability scores is reduced by half, for the people with high resilience scores. The general population unemployment rate for all adults during the time period when the BRFSS data was collected was 13%.



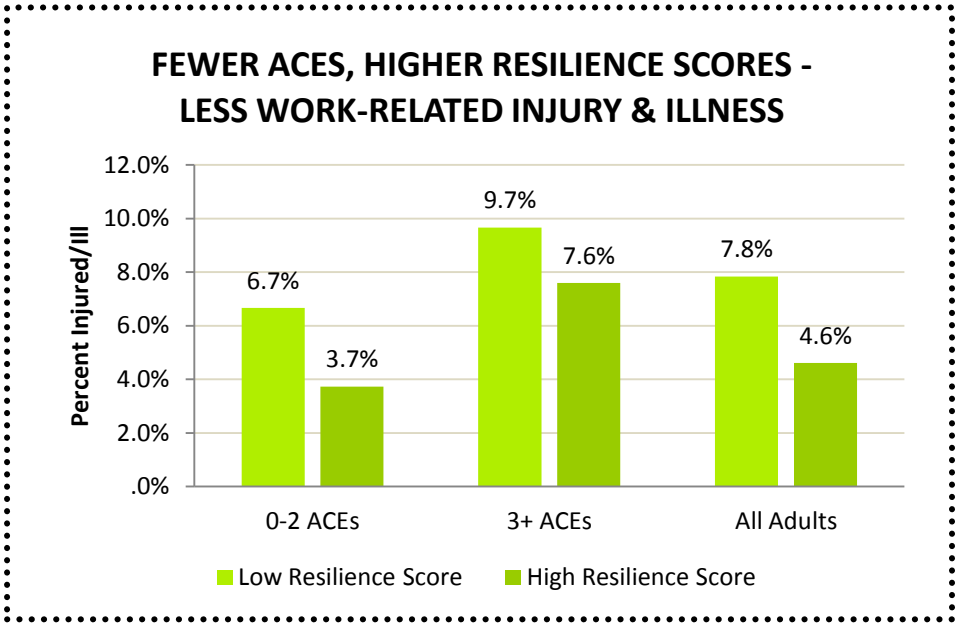
Even among people with very high ACE scores, people with high resilience scores are as likely to be employed as the general population. Unemployment rate for people with 6-8 ACEs and high resilience score is 12%, while the general population unemployment rate is 11.8%.



Among people with disabling conditions, having high resilience score appears to contribute to fewer high stress adult experiences, like housing instability and work-related injury and illness.



People who had higher resilience scores were less likely to be hurt on-the-job or have work-related illness than people with low resilience scores.

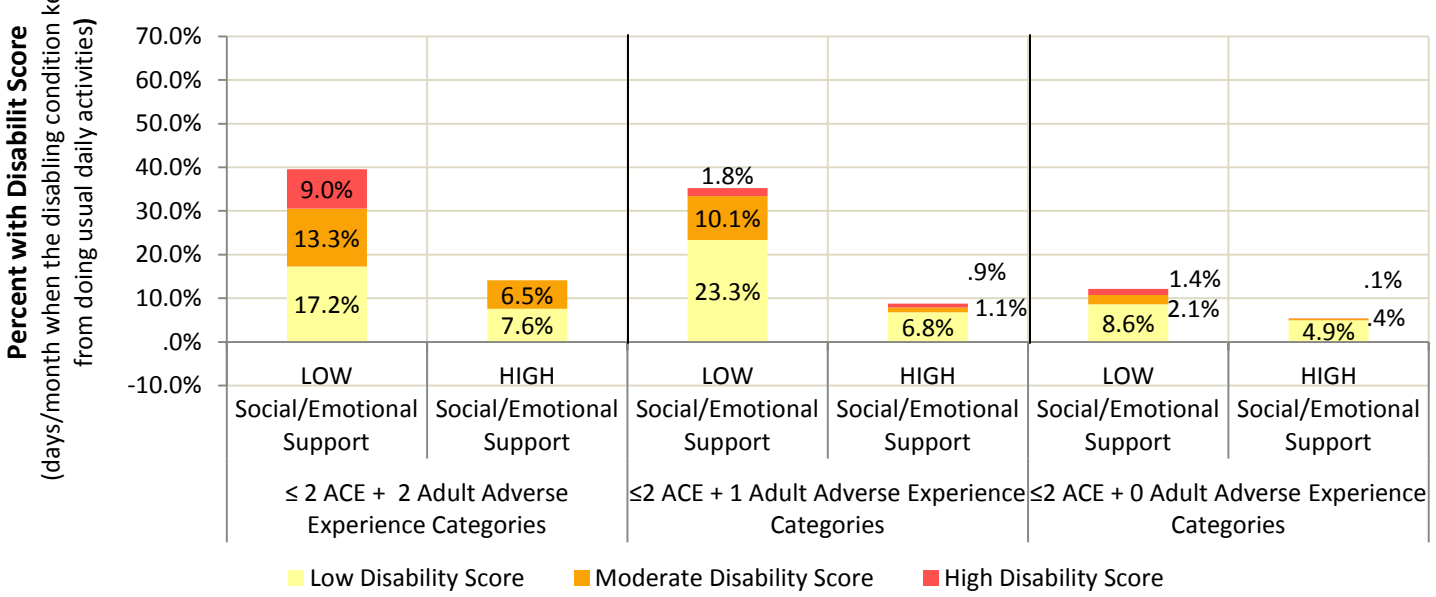


The three resiliency factors considered in this report do not mitigate disabling conditions. However, these data indicate that when all three are present, people with disabling conditions – even people who have suffered adversity during childhood and adulthood – have more days each month when they can do their usual activities, have better housing stability, are more likely to be employed, and have fewer work-related injuries and illnesses.

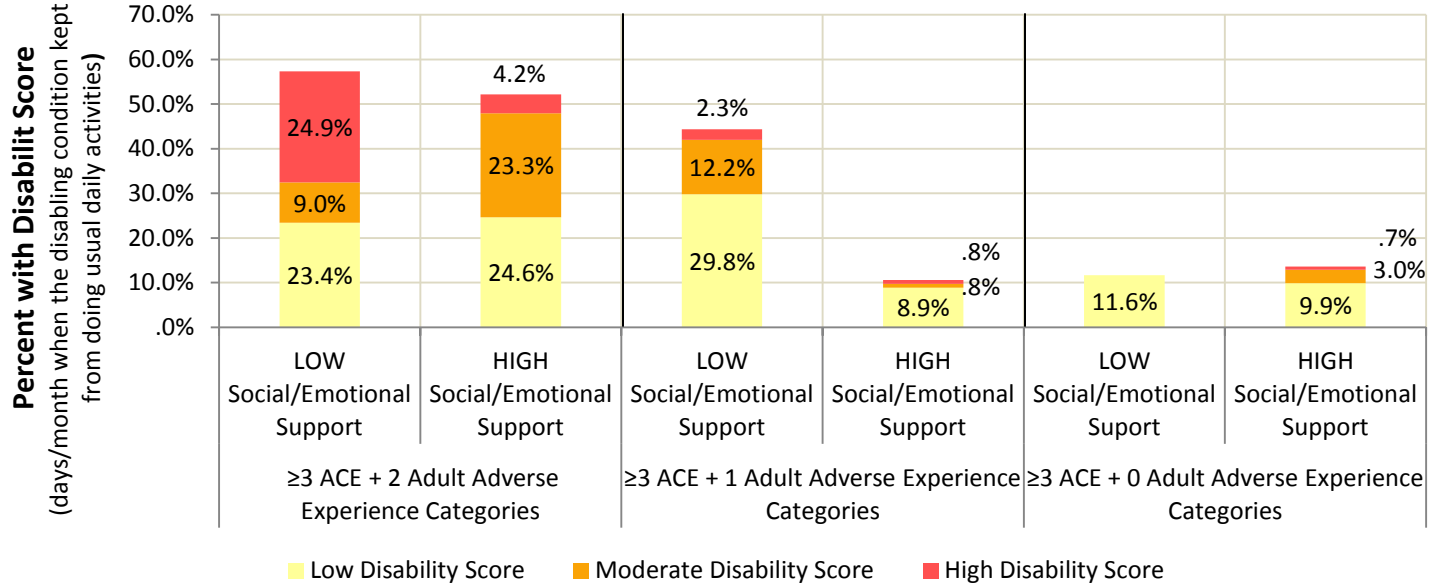
The figures on the next page show the positive effects of social/emotional support for people with low and high ACE scores. With a little organizing infrastructure, neighbors, peers, and other community residents can be powerful and important actors in removing barriers to employment and helping people to obtain and retain work.

PREVENT ACE: MOST POWERFUL STRATEGY

REDUCING ACCUMULATION OF TOXIC STRESS BEGINNING IN CHILDHOOD PLUS INCREASING SOCIAL/EMOTIONAL SUPPORT



MITIGATE ACES: REDUCE ADULT ADVERSE EXPERIENCE AND INCREASE SOCIAL/EMOTIONAL SUPPORT

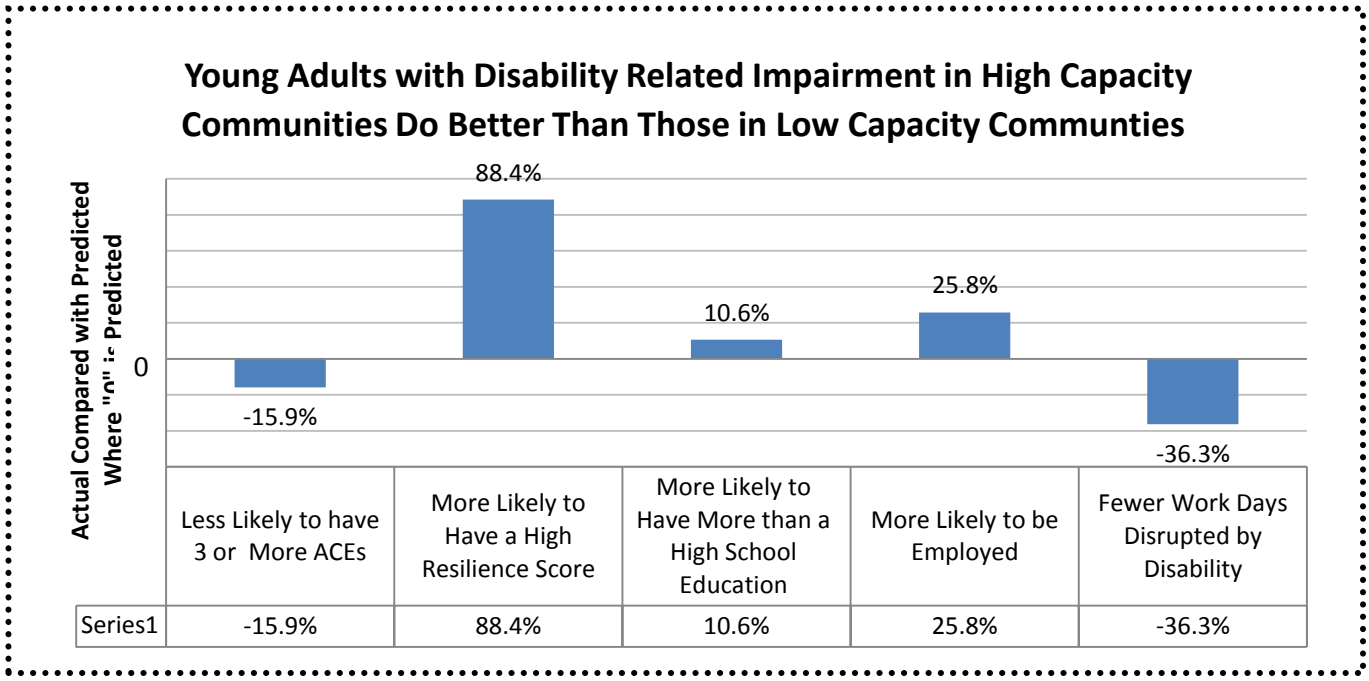


Community Capacity

Introduction to Finding 6

Communities can be more or less effective in solving problems and supporting resiliency. The Family Policy Council has been measuring community capacity in Washington communities since 1998 using a unique index that is based on the Family Policy Council's capacity development model (See Attachment 3). Adults who would have been affected by implementation of the Family Policy Council Community Capacity Development Model are now young adults, ages 18 to 34. In this analysis, we looked at whether or not young adults with disability-related functional impairment fare better when living in communities with high community capacity scores. They do. This finding illuminates the potential of environmental strategies for helping people with disabilities to obtain and retain employment, even in an economic downturn.

6. **In communities with high capacity for coming together to address important issues, people with disabilities are more likely to be employed, even in bad labor markets.** Young adults with disability score who live in communities that have consistently scored high on the Family Policy Council Community Capacity Index (1998 -2009) have better-than-predicted[1] rates of having:
   - More than a high school education,
   - An ACE score of < 3,
   - Higher resiliency score
   - Greater likelihood of employment, and less days interrupted when employed
   - Few days per month when a disabling condition kept them from doing usual daily activities



[1] Better-than-predicted was calculated by comparing the rate trends in communities with low capacity scores and high capacity scores. The trends for considered factors in low capacity scoring communities and high capacity scoring communities were similar for people ages 35-64. With context being equal, we would expect to see similar rates for adults ages 18-34 in the two kinds of communities, just as we saw in the other age groups. We predicted the high capacity community trends using the trends that occurred in the low capacity communities. The difference between the predicted rates of various factors and the actual rates of the same factors in the high capacity communities equals better-than-predicted findings in this report.

Based on total population ages 18 to 34 with disabling conditions and functional limitations in high capacity communities:

- **2,213 young adults have an ACE score of <3**, yet were predicted to have an ACE score of 3-8
- **4,390 young adults have received better than a high school education**, yet were predicted not to
- **15,517 young adults have high resilience scores**, yet were predicted to have low scores
- **8,556 young adults were employed** at the time of the BRFSS interview who were predicted to be unemployed, if the trends had followed low capacity community trends
- **On average, young adults had 2.8 fewer days/month when their usual activities were interrupted** due to their disability. In these high capacity communities, 78,763 fewer days were interrupted.

Community Variation

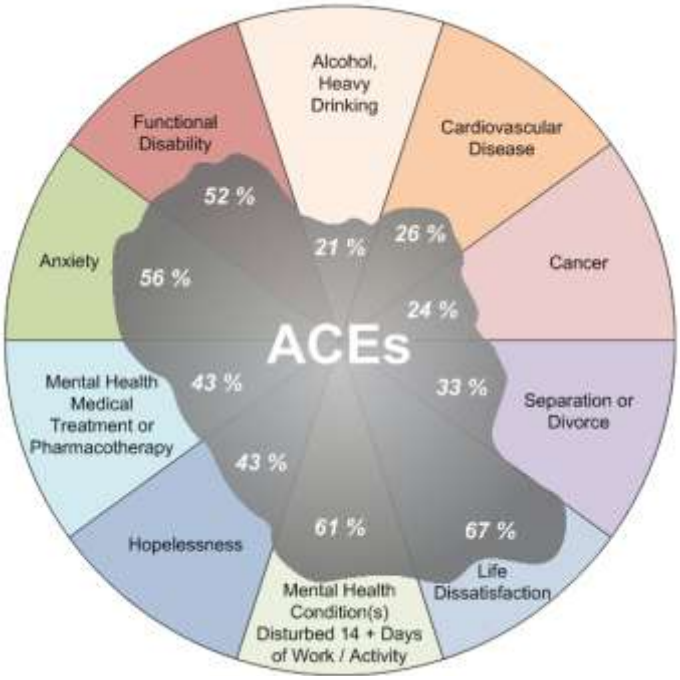
7. **Community variation is vast in Washington. The prevalence of disability-related factors that affect employment success is not uniform across the state, or across any "type" of county. A community-specific constellation of barriers to employment can most powerfully be addressed through a combination of usual DVR best practices plus locally-tailored action.**

Dr. Longhi was able to define the DVR office catchment areas, using clusters of zip codes, as identified by DVR staff. While DVR customers may go to any office, and are not restricted to a particular office because of their home or work address, the data below provides important information about the community variation in disability rates, ACE score prevalence, the rate of persons unemployed, and able to work, and the rate of persons unemployed, and report being unable to work. Maps showing information about each of the DVR office catchment areas are included as Attachment 1 in this report.

Discussion

Adverse Childhood Experience - ACEs

This diagram shows the tremendous potential we hold for improving lives when we work to reduce ACEs. These Population Attributable Risk percentages are from the Washington State data.



Population Attributable Risk means the percentage of a disease that can be attributed to exposure to a particular risk factor. Population attributable risk is a measure of the impact of exposure across the population as a whole – it shows the portion of a condition that is attributable to a disease agent, in this case Adverse Childhood Experience.

Fifty two percent (52%) of disability-related impairment in daily functioning is attributable to Adverse Childhood Experiences (ACEs).

Even though DVR is not in the business of working with children, DVR actions with parents can have a powerful effect on the prevalence of ACEs – and by extension, on disabling conditions and disability score in the next generation. Many of the same kinds of supports that help parents with disabilities to obtain and retain employment would also contribute to reducing ACE prevalence. So, attention to the way DVR works with parents will increase the magnitude of solutions across the entire population.

Imagine that, as we reduce ACE prevalence from one generation to the next, the inner grey portion of this circle will collapse, and only the portion of disease attributable to other causes will remain. Imagine how much smaller this whole circle will be when we dramatically reduce ACEs. We're not talking about reducing only one problem at a time – we are talking about transformative change whereby we dramatically reduce all of these problems at once by focusing our efforts on this powerful leverage – ACE reduction. By understanding the neurological impacts of ACEs during development, scientists and practitioners are discovering accommodations that help to stop the negative spiral of adult adversities that too many people with high ACE scores experience. We don't have to change the work we do in order to contribute significantly to these goals; we may only need to shift the way we work in small ways in order to deliver big improvements.

Developmental neurobiology findings show that the effects of toxic stress can set in motion a cascade of challenges throughout the lifespan. Some of these are hard-wired into biology, and some have to do with society's response to normal human adaptations that are attributable to ACEs. People who experience toxic stress in critical or sensitive developmental periods may experience subsequent stressful events as crises. Toxic stress during development can have major impacts to executive function – which is the ability to make a plan and stay focused to execute the steps in that plan to achieve goals. People who have lots of crises and can't seem to act on their own behalf to build a better life are, unfortunately, more vulnerable to rejection in school, work, and social settings. The combination of neurological adaptation and societal response can lead to the patterns of adult adverse experiences noted in this report, i.e. housing instability.

People with high ACEs are more likely to have challenges that directly affect employability. Examples of these include: attentional deficits, emotional regulation problems, auditory or visual processing challenges, confused orientation in time or space, and other adaptations that become hard-wired into biology and affect adult functioning and employment. Age, gender and the type of stressor are important variables that affect adaptation and life-long outcomes.

Research to Action: Safe Harbor Crisis Nursery

Managers throughout the state are developing and testing new ways to help and provide accommodations based on the science of human development. At Safe Harbor Crisis Nursery, professionals noted that parents would often describe having a job interview or medical appointment as a crisis that required emergency care for their children.

Understanding the science behind the ACE study findings, Crisis Nursery staff developed specialized programming for parents to help them make a plan and engage friends, neighbors, relatives in specific roles that make plan implementation possible. The Nursery staff generated trauma sensitive training and bilingual materials for parents, volunteers and staff, and has led to funding for a program that teaches calming techniques.

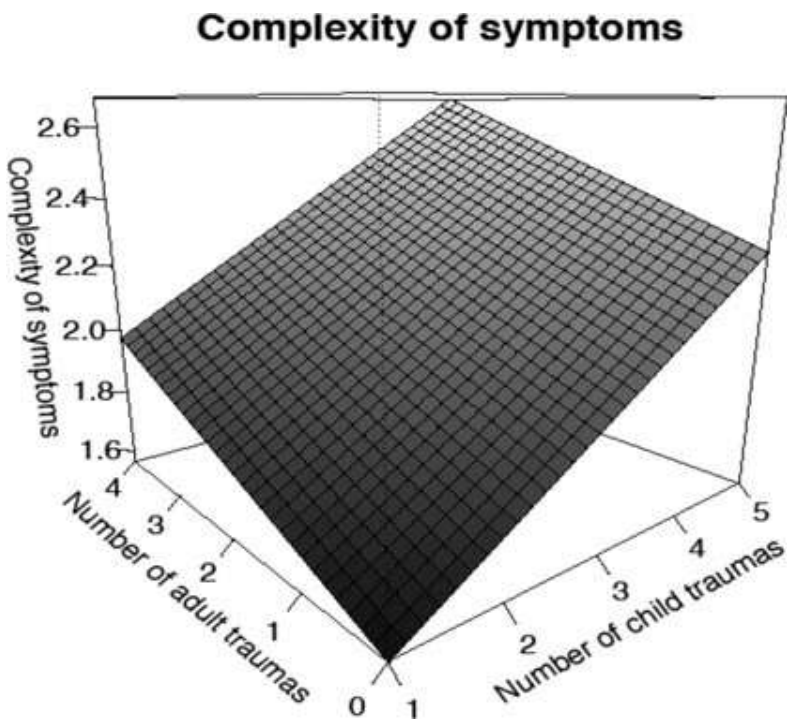
Children and parents learn these techniques and practice together and separately. Children can remind parents about calming by using calming techniques themselves, like a soothing song; parents can remind children about calming by using calming techniques themselves and talking about how and why these are helpful. These same techniques can be vital ingredients in navigating a job interview, relating to supervisors and co-workers, and retaining employment.

Adverse Adult Experience

Toxic stress during adulthood interacts with the impacts of Adverse Childhood Experiences (ACEs) and results in more complex adult symptoms and life challenges.

The figure to the right "shows the relationship between symptom complexity and both child and adult trauma together. The figure shows the results of … symptom complexity on smooth functions of the two predictors. The relationships appear linear, with a steeper slope associated with child trauma (reflecting the stronger relationship with symptom complexity) compared to adulthood trauma." (Cloister, Herman et. al., 2009)[viii]

THREE DIMENSIONAL REPRESENTATION OF RELATIONSHIP OF CHILD AND ADULT CUMULATIVE TRAUMA TO CURRENT SYMPTOM COMPLEXITY



"The three-dimensional figure also provides a visual representation of the joint relationship of adult and childhood cumulative trauma to symptom complexity." (Cloister, Herman et. al., 2009)[ix]

"A significant relationship between cumulative trauma and symptom complexity was observed. …These data suggest that lifetime cumulative trauma is related to symptom complexity [in adulthood] due to the presence of childhood cumulative trauma. (Cloister, Herman et. al., 2009)[x]

Adverse Childhood Experience lays a neurological foundation; adult adversity builds upon that foundation to deliver symptom complexity.

ACEs, Adverse Adult Experience and Parenting

A parent who has experienced childhood trauma and adult trauma has an important job at home – in addition to his/her job at work. Applying findings from the National Child Traumatic Stress Network and research about returning war zone veterans, we can begin to map a set of competencies and skills that are relevant and important. Other resources are available to expand this map; these are outside the scope of this report.

The National Child Traumatic Stress Network has identified six core components of intervention that parents and children do as a family unit. These parallel a parent's recovery from Post Traumatic

Stress Disorder (PTSD). While described in terms of the context for the child's healthy development, the core competencies developed through the intervention are likely important in significant relationships in other domains, like the relationship between the VR counselor and customer and the DVR customer and employer.[xi]

- SAFETY: Creating a home, school, and community environment in which the child feels safe and cared for.
- SELF-REGULATION: Enhancing a child's capacity to modulate anxiety and restore equilibrium following disregulation of affect, behavior, physiology, cognition, interpersonal relatedness and self-attribution.
- SELF-REFLECTIVE PROCESSING: Helping the child construct self-narratives, reflect on past and present experience, and develop skills in planning and decision making.
- INTEGRATION OF TRAUMATIC EXPERIENCES: Enabling the child to transform or resolve traumatic reminders and memories using such therapeutic strategies as meaning-making, traumatic memory containment or processing, remembrance and mourning of the traumatic loss, symptom management and development of coping skills, and cultivation of present-oriented thinking and behavior.
- RELATIONAL ENGAGEMENT: Teaching the child to form appropriate attachments and to apply this knowledge to current interpersonal relationships, including the therapeutic alliance, with emphasis on development of such critical interpersonal skills as assertiveness, cooperation, perspective-taking, boundaries and limit-setting, reciprocity, social empathy, and the capacity for physical and emotional intimacy.
- POSITIVE AFFECT ENHANCEMENT: Positively enhancing a child's sense of self-worth, esteem and positive self-appraisal through the cultivation of personal creativity, imagination, future orientation, achievement, competence, mastery-seeking, community-building and the capacity to experience pleasure.

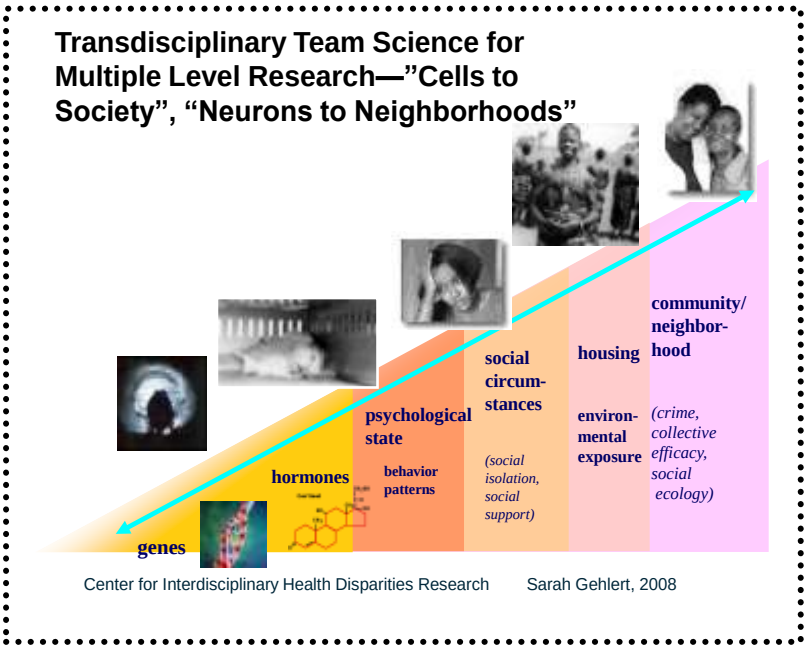
Returning war zone veterans have unique strengths and needs. However, the actions that are most effective for veterans are also actions that are effective with people who have experienced complex trauma – in childhood and as adults. Study after study confirms that a strong social network of friends, neighbors, employers, and people with similar interests in the community makes the transition home easier and healthier. Everyone can play a helpful role in strengthening the social network of a returning veteran. Positive roles include:

- MATERIAL SUPPORT, INCLUDING EMPLOYMENT: Money, the ability to make a living, housing and other resources matter. We all need to know that we can count on others if times get tough.
- HELP WITH TASKS AND PROJECTS: It's hard to "go it alone" when there's work to do. Knowing we can ask someone to share the load is supportive.
- SHARING AND ADVICE: Perspective, problem solving, and the opportunity to talk make a big difference whether the issue is large or small.
- POSITIVE INTERACTIONS: Getting together and having fun reduces stress. Hearing positive things makes it easier to take next steps and make transitions of all kinds. (Goldstine-Cole for Washington State Family Policy Council; 2005)[xii]

Why Social Isolation Matters

"Investigators have identified stress-hormone (glucocorticoid) receptors that are activated by social isolation that activate biochemical pathways" to disease and disorders. (Gehlert, 2008)[xiii]

"Social isolation is important for understanding health [and employment] disparities because of its links to numerous health outcomes. Loneliness has been linked to various cardiac activations, decreased cellular immune function, and increased release of stress hormones. The degree to which people engage, form relationships, and leverage resources can be traced to surrounding social structure, how people fit into these structures, and the economic realities that they present. Variation in neighborhood organization may promote or impede social interaction – a critical determinant of health status. Understanding the nature of upstream determinants [race, poverty, disruption, neighborhood crime, isolation, acquired vigilance, and depression] is best achieved through partnerships with community stakeholders." (Gehlert, 2008)



Resilience Indicators Available Through BRFSS

Social & emotional support, feeling fortunate in life, and hope for one's future are powerful factors for overcoming the odds of unemployment among adults with disabling conditions. These have a compounding effect. When high levels of all three are present, unemployment plummets to zero for a large portion of adults with disability – people with low disability scores in areas with high labor participation. This finding is consistent with, and brings into focus for the DVR mission, an extensive literature on resilience.

What is resilience? There are many operating definitions: "The natural human capacity to navigate life well." (HeavyRunner & Marshall, 2003); the capacity to absorb disturbance and re-organize while undergoing change, yet still retain essentially the same function, structure, identity, feedbacks (Walker et al., 2002); the ability of an individual, system or organization to meet challenges, survive, and do well despite adversity (Kirmayer, 2009). Dr. Ann Masten, a leader in resilience research, explains that in terms of developmental pathways, resilience involves maintaining a developmental trajectory, returning to the original trajectory after a temporary deviation, or shifting to an entirely new trajectory that also represents a healthy life path. Resilience is like surfing – it requires continuous balance and grace, ability to spontaneously respond to the demands of the unforeseeable dynamics of life, eagerness to learn and use new skills and maintenance of one's physical and emotional health and one's spirit for living life with joy, and the practice of seeing each

new wave as an opportunity for growth. Resilience can be thought of as a community and cultural process that helps people overcome stress, trauma and other life challenges as we draw from social and cultural networks and practices.

Three core systems guide positive adaptation. These powerful protective systems are:
• Community, faith, and cultural processes
• Attachment and belonging with caring and competent people
• Individual capabilities

When strengths are developed through the core protective systems – community, attachments, and capabilities – problems are prevented in many facets of life. Children who develop healthy attachments and pro-social behaviors are more likely to do well in school, leading to dual success in peer relations and learning that contribute to positive self identity and confident participation in work and community. According to Dr. Masten, when we nurture the healthy development of these core protective systems, we take the most direct route to help people overcome potential threats and adversities.

Dr. Pauline Boss is a psychologist best known for her work helping individuals who have suffered debilitating loss move toward joyful and fulfilling lives. Her work covers a variety of kinds of losses – from loss of one's country through resettlement to loss of one's family in a terrorist bombing. She has studied ambiguous loss – the kind that has no closure, and remains with us throughout life. Having a disabling condition that interrupts daily life/work activities is an ambiguous loss.

Dr. Boss's landmark book, *Loss, Trauma, and Resilience (2006),* describes a six phase healing journey that can be supported and encouraged by professionals, elders, and caring friends. These six phases are: making meaning, tempering mastery, reconstructing identity, normalizing ambivalence, revising attachment and belonging, and hope. She asserts that individuals do not live in isolation. Having a sense of community is an important part of resilience. One's community or tribe can help heal family and individual wounds, promoting the focus of resilience on the network of connections between and among individuals, families, and communities. Whether with their birth family or a chosen family, resilient individuals feel a sense of belonging with those who care for them, join in celebration of major life events, and comfort them when life gets tough.

Dr. Boss recommends that interventions should pay special attention to developmental transitions in individual, family and community life. The healing journey that Pauline Boss has documented through international work includes: revising attachment and belonging, finding meaning, and hope. The three questions in the BRFSS that we used for this DVR analysis as proxy for "resilience" correspond directly with these phases in the journey. So, it shouldn't surprise us that a high score using these three factors is highly related to successful employment. Taken together, these are great indicators, supported by a solid research foundation.

"Therapeutic Goals for Healing," Dr. Boss	BRFSS Question	Discussion
REVISING ATTACHMENT AND BELONGING Revising attachment means renewing connections with relatives, friends and community, even if primary relationships are not the same because of divorce, death, or other reasons.	*How often do you get the social and emotional support you need?*	What helps? 1. Developing ceremonies or rituals, 2. Including others in therapy and health-promoting activities 3. Engaging in multiple-family or whole community dialogues 4. Setting up mutual support systems 5. Creating art and music
MEANING The ways that people find meaning varies greatly. Some find it through cultural beliefs or religion; others find meaning through a spiritual acceptance of the circle of life, a philosophy of life that helps them live more in the moment, or reframing what is important in life. Meaningful action is the foundation for making sense of life difficulties.	*So far, have you get the important things you want in life?*	What helps? 1. Naming the problem 2. Doing small good works 3. Engaging in rituals 4. Forgiveness 5. Religion and spirituality 6. Hearing and telling stories 7. Seeking justice 8. Living into hope
HOPE All of the processes of the journey to a joyful and fulfilling life bring one back to hope, according to Dr. Boss. Hope-filled action is central to resilience: without hope there is no meaning; without meaning there is no hope.	*During the past 30 days, about how often did you feel hopeless?*	What helps? Hope-filled action

Community Context and Capacity

Community is a group of people involved in ongoing social interaction and with psychological ties with each other and to the place they interact. Community can be geographically bounded, or may be geographically dispersed yet strongly connected through a sense of belonging. In this study, community is defined geographically. The social-ecological model of resilience says that there is an interaction between the individual, their experience, and the context or environment in which that experience occurs. Resilience can be viewed as a community and cultural process. Community, culture and spirituality provide human beings with belonging, faith, hope, and a sense of meaning.

Community capacity may increase the resilience of individual members because the community environment is conducive to healthy childhood development and because people can draw from community resources throughout their lives to help during stressful times. The link also may work the other way. If many individuals in a community experience resilience, this can contribute to

making the whole community more resilient, since they work together more easily to respond to stressors and celebrate life.

Communities themselves can be more or less resilient. Communities can have a healthy social response to crisis, making changes to the way people organize inside the community, and generating new kinds of interactions with the surrounding environment – including social, economic and political entities. When people unite around common purpose, they are also more likely to be able to buffer or influence economic, political, and other meta-determinates of health. Communities can provide more or less opportunity for people to overcome stress, trauma and other life challenges by drawing from the social and cultural networks and practices of the community. These networks and practices are embedded in the value systems of the community – promotion of resilience requires tapping into those value systems, challenging people to realize core values in their every day actions, and supporting policy and systems change so they can do so.

High capacity communities generate organizational structures where members interact in a web of meaningful relationships and where members help and are helped by others. They foster nested social networks that can reduce individual vulnerability and enhance well-being. High capacity communities provide individuals and families with new opportunities to deal with challenges and to co-lead further development of community health. Community resilience is rooted in cultural values and practices but is not rigidly attached to only one standard. A resilient community is able to withstand internal conflict while maintaining the diversity of its individual members, families and groups.

Communities that develop capacity to come together, identify and focus on issues that matter to community members, provide inclusive systems for learning and opportunity, expand leadership roles and reciprocity to make decisions that are consistent with community aspirations are communities that earn high community capacity Scores using the Family Policy Council Index (See Attachment 3). These scores are the measure of community capacity used in this report.

While the validity of the Family Policy Council Community Capacity Scores cannot be tested directly, expert evaluators of comprehensive community change initiatives agree that using mixed methods (qualitative and quantitative), considering multiple data sources to see whether all the different sources point in a common positive direction, and using measures that are relevant to a model describing the expected pathway from theory through action to results are best practice for evaluating comprehensive community initiatives designed to produce population-level results. The Family Policy Council employs all of these techniques. Studies using various different data sources can be found on our website. Results from multiple analyses have validated our index and findings about the link between high community capacity scores and improved rates of major social problems, including employment among individuals with disabling conditions.

This report adds a new dimension to our understanding about the pathway from community capacity to improved rates of major social problems. The significant correlation between high community capacity scores and high resilience scores, as indicated by an index using BRFSS data, illuminates the importance of social/emotional support, feeling fortunate in life, and hope as intermediate milestones in the Family Policy Council Community Capacity Development Model.

When we invest in Community Capacity Development, we are investing in the ability of people who have the most at stake to come together under their own power and develop the skills and resources to deal with problems in their families and their communities. General Community Capacity improves the social determinates of health and the quality of direct services. People living in high capacity communities are less likely to have high Adverse Childhood Experience scores, less drug and alcohol abuse, less depression and serious and persistent mental illness, and fewer problems in school and at work. They are more likely to have stable housing, employment and less likely to have work-related injury or illness. Investment in general community capacity using the Family Policy Council model has a track record of producing stunning success for a small investment.

Implications for DVR

Washington's Division of Vocational Rehabilitation has a well-earned reputation for leading our nation in effective, strategic and informed action to help people with disabilities succeed at work. The data analyzed and presented in this report suggests that DVR consider building on current strengths using five broad strategies:

1. **Partner with communities to attract and retain young people as DVR customers.** The first decade of adulthood is when people are at tremendous risk for adult adverse experiences like homelessness, incarceration, separation, divorce, severe depression, and onset of mental illness. This same decade is when young people often become parents. Lack of employment opportunities during this phase has a strongly negative impact on future employability. DVR services during this decade can help to avoid these adversities, and thereby reduce the complexity of disability-related impairments throughout the lifespan. Opportunity for employment and wage progression later in adulthood will improve because symptoms will be less of a barrier to success at work. Concurrently, DVR will contribute significantly to reducing disabling conditions in the next generation because skills and social/emotional supports needed for success at work are also valuable at home.

2. **Conduct targeted outreach and intensify services to parenting adults with moderate to mild Disability Score.** Consider investments in face-to-face social networking and peer-to-peer helping systems that focus on emotional support and practical help for parenting adults who are job seeking or employed. Partner with communities to recruit and retain business commitment to employ parenting adults, with DVR support – as an act of community leadership and commitment to this and future generations. Parents are a child's safe haven, but it is hard to be that without a job.

3. **Shift referral and skill building opportunities for customers toward intentionally building community-level social support; measure social/emotional support as a core metric.** Work with communities to develop social support across generations (young person to middle aged person, etc.). Emotional support, social activities and practical help (e.g. childcare, getting groceries, fixing a porch light, etc.) are important components in the kind of resilience that produces job readiness and employment stability. As DVR provides opportunity for skill building and work-related experience, counselors and contractors could offer to DVR customer's opportunities to provide leadership or participate in social networks within the community. Helping others in the community is a great way to gain skills and experience, and it is also a great way to get to know potential employers.

4. **Invest in professional development for job coaches, peer group, and DVR counselors to ensure trauma-sensitive services and service environments.** Work with specialists to develop training and tools for DVR professionals and their partners to use to reduce trauma triggers, improve assessment and coaching for accommodation, and to support employer success. Consider a train-the-trainer model once training and tools are created, to rapidly disseminate information throughout the state.

5. **Use the findings in this report as a call to action. Convene dialogues that invite a wider circle of partners into DVR work.** Expand leadership across sectors, classes, cultural groups and professional disciplines. The data presented in this report clearly show that some communities

are successfully generating a work climate of inclusion. Communities can produce the social and business context for success. People become involved in generating and sharing that success when they explore a wide range of information about their community and think about the legacy they want to leave to their children and grandchildren.

Recommendations

Findings from this analysis can be used to improve*:*

1. Strategic outreach
2. Assessment & referral
3. Individual Plans for Employment – improve the fit between life experience and accommodation/skill building
4. Partnerships to help DVR produce big gains
5. Geographic targeting & tailoring
6. Environmental strategies to augment individual strategies

Ideas for improvements in these areas are discussed below.

Strategic outreach

People with Low Disability Scores are the most likely to obtain and/or retain employment, according to the BRFSS data. These are people who have 1-15 days in any given month when their disability interrupts their usual work/life activities. Two outreach strategies, implemented concurrently could improve both short and long term outcomes from DVR services.

1. **Outreach to people who are already employed, but, in some months, experience 1 to 15 days with disability-related interruption to usual work activities holds great opportunity for success**. Working both through employers (and their Employment Assistance Programs (EAPs), if they have them) and by communicating with the general public through a public information campaign, outreach could effectively target this population.

2. **Outreach to people who are not employed, and find their lives challenging to manage because 1-15 days a month they can't do their usual activities also shows promise**. Keeping up on goals, commitments, even friendship can be very difficult when everybody else has 30 of 30 days to get everything done, and you have only 15 of 30 days for your usual activities. Especially for parents and for the generation taking care of elder parents, the list of usual activities is long. Natural supports from neighbors, friends, extended family and community connections may have eroded, in part because of the gap between social norms for consistently being able to show up for social and other activities, and the realities of living with a disabling condition. Helping people to learn to articulate strengths and limitations in environments where everyone is encouraged to do the same (not just the people with disability), can strengthen social/emotional support in ways that improve the odds of successful employment.

Other outreach ideas include the following:

Conduct targeted outreach to populations known to have high ACE scores: e.g. youth aging out of the foster care system; youth who have been adjudicated; people who were (or are)

> ***"…stress programs our stress response systems to have a more exaggerated and prolonged response to subsequent stressors. Basically the amount of stress you have in childhood is going to wire you to be a high stress responder or a low stress responder. And you're going to carry that with you [throughout your life]. Dr. Martin Teicher, Keynote Address, Family Policy Council Partners' Summit, 2005***

teen parents; people who did not complete high school; people with chronic health problems. Outreach through community partners that know these populations and build on the trusted relationships that already exist. Consider cross-training lay leaders and professionals to do some of the work usually done by DVR contractors (or develop contracts that encourage contractors to do their work in partnership with others), so DVR supports can meet people where they are.

Make sure that places where people go or call when they are facing a crisis know about DVR services. Ability to place life experiences along a continuum from normal to crisis can be effected by toxic stress during childhood (ACE). Experiencing life events as crises can become hard-wired into biology. Since 52% of disability-related functional impairment is attributable to adverse childhood experience, it follows that many potential DVR customers seek assistance through crisis-oriented services. Drop-in clinics, hospital emergency rooms, crisis nurseries, crisis phone lines, family support professionals in ECEAP and HeadStart, and other people who help trouble shoot and resolve crisis situations can be an effective natural extension of the DVR outreach strategy.

Intentionally layer outreach messages using different communication methods – auditory, visual, and experiential (café dialogue, events, community work projects). These accommodate differences in neuro-processing associated with toxic stress during human development. Events and work projects structured as "open house" or "drop in" can be effective for people with difficulty tracking time – if you will always be welcomed and can't be considered late, you are more likely to show up. Both the potential customer and the partner that DVR is asking to help to conduct outreach may have these neuro-processing differences. Especially in places with very high ACE prevalence, messaging strategies should include multiple communication methods.

Develop targeted outreach materials and messages designed for people in life transitions. Reach to and through groups that provide help and support during life transitions.

Assessment & Referral

Consider adding ACE questions to the standard DVR assessment. For those with a high ACE score, ask:

> *"How have these experiences affected you through your life?"*
>
> *"What are your most effective ways of coping in stressful times?"*

Follow up with acknowledgement of the person's value as a customer and as a member of the community where he/she lives. Making a safe place for people to tell the truth of their life experience is a powerful act for recovery.

Research to Action: Jefferson County Public Health Dept.

Jefferson County Public Health and the Community Network are in the same building, so it is not surprising that Family Policy Council efforts to disseminate information about ACEs have influenced the health department's work. With money from a local philanthropy, one versed in ACEs through the Network, the Maternal and Child Health program has revised its client intake form to include questions about ACEs. This process has created opportunities to discuss sensitive issues with parents, gain a better understanding of clients' needs, target the most vulnerable populations, and provide more a better match of referrals—all without increasing the length of visits or the staffs' workload.

Use de-identified ACE data as a feedback system to improve results. With these data, DVR counselors, coaches and contractors can learn about employee and contractor strengths and challenges working

with people with high ACE scores. Data can reveal the types of referrals, skill building opportunities, and other strategies that are most effective with people with high, or low, ACE scores. This feedback can inform professionals development planning as well as improve the effectiveness of DVR services.

Identify or develop and test screening tools that can help DVR identify neuro-adaptations that may be barriers to successful employment, for example changes in executive function, auditory or visual processing, and inability to pick-up on social cues.

Consider Core Gift Assessment – developed by Bruce Anderson for the State of California's work with people who were homeless and mentally ill. This assessment helps people to move beyond their current set of skills and competencies to center their life aspirations on the unique gifts and life purpose that are apparent in the patterns of interactions and interests of their lives. DVR customers could participate on both sides of the assessment process – learning about their own core gifts and how to align work aspirations with them. Learning how to conduct core gift interviews and use these skills can improve peer or work environments.

Screening & Practice Change

"The question of what we would want to be different is very challenging because of the differences in impact of trauma for gender, type of trauma and age when the trauma(s) occurred. Reflective paraphrasing may need to occur; a person may have difficulties with recall after neglect, or have challenges with auditory processing. What would it be like if there were more video and pictures – helping people understand … One technique is to draw how the conversation moves along – so the person doesn't have to keep one thing in his/her mind's eye while trying to think of another.

We might need to give directions that are clearly numbered in order to support people who have difficulty sequencing actions. We may need to be more process oriented in our information sharing – instead of just saying what the end point is we may need to describe the sequence of ideas that lead to the end point."

(Notes from Family Policy Council Think Tank, Session: *Adopting casework and services for people with FASD and/or executive dysfunction – how to improve communication with people with cognitive/executive dysfunction in case work, social work, education, medicine, etc.,* Deborah Gray, 2010)

Expand the tools and protocols for creating trauma-informed services developed and tested at the Eastern Washington Area Health Education Center for use in schools. Apply these in the DVR context. When professionals know how to identify trauma triggers, how to avoid these, how to talk about accommodations and build high levels of trust with people who are easily triggered by stressful events, they are more effective and their working conditions improve. Customers learn how to avoid triggers, how to appropriately disclose and ask for accommodation, and how to support trauma informed environments at work, home, and in the community. This work would have an added benefit of aligning the approaches and tools used in high schools with the approaches and tools used in DVR – helping to achieve DVR goals with youth in transition.

Individual Plan for Employment - IPE

Individual Plans for Employment provide an opportunity to improve the fit between life experiences, accommodation, and skill building.

R**efer DVR customers to help lead community betterment projects** in places that have invested in neighborhood organizing or cross-generation work groups that build skills and relationships at the same time they build people's sense of community and belonging. This strategy would give the customer valuable experience and relationship ties, provide an important contribution to the overall resilience of the community, and help the community solve an problem or improve an asset that is important to local people. These types of referrals provide a triple-win – and demonstrate efficient and effective use of resources – some of which can be counted as in-kind match and thereby help to keep federal dollars in the state.

Engage people who achieve part time employment through DVR services to become leader/facilitators for other customer groups. They may be effective in troubleshooting barriers to employment, and in providing social/emotional support with other customers. They can also provide valuable feedback to DVR.

Co-host a think tank for researchers and practitioners to surface new practices and identify specialists who can develop tools for use in IPEs which are well grounded in neuroscience, and have potential to improve DVR success with customers.

Partnerships to help DVR produce big gains

Partner with Department of Health in development of future BRFSS questionnaires – add questions, target inquiry, oversample to learn about specific populations. Use answers to BRFSS questions to learn about cultural differences in resilience factors that may be important in targeting services to specific groups.

The Department of Labor and Industries (L&I) has a strong interest in reducing workplace injury and work-related illness. Since intermediate outcomes for DVR and L&I have common ground, initiatives to produce those intermediate outcomes, especially community-level change, education and development of tools and practices may be able to be jointly funded..

Washington's Community Public Health and Safety Networks are natural partners for DVR work because they already represent multi-disciplinary leadership of communities across the state, they are knowledgeable about ACEs, their effects and relevant accommodation strategies, and have a reach into the business, housing, faith, and other sectors that can provide valuable support and employment for DVR customers. Network coordinators and members are well positioned to become trained trainers using the content of this report and to host dialogues with community leaders, supporting mutual learning and generating ideas for improving employment-related outcomes among people with disabling conditions.

WA Mentors can provide education and assistance to all mentor programs in the state – programs that can provide important supports to DVR eligible people. Many people talk about the importance

of people in their lives – people who recognize and encourage our unique talents, interests and strengths. Relationships with caring and competent people are vital. People who have difficulty with emotional regulation, picking up social cues, problems with addiction and family, and other consequences of developmental trauma, can be challenging friends and mentees. We have to be intentional about building competence in mentors, friends, neighbors, even marriage partners. Skill building, coaching, ability to consult with mental health professionals and other supports may be important supports that increase the likelihood that a mentoring relationship will last and contribute to resilience. Relationships that provide security and belonging can only occur when people have the skills and competencies to actually be supportive in times of stress and challenge as well as during celebration and repose.

Use system dynamics modeling to learn and identify high leverage actions that, without modeling, might remain elusive.

Use word of mouth and social networking systems for sharing what DVR does – the power of social connection can bring uncommon partners to the table to help people with disabling conditions obtain and retain employment.

Geographic targeting & tailoring

To generate rapid success with employment in the near term, direct outreach to customers and businesses in geographic areas with high resilience prevalence and relatively low ACE prevalence. The data suggests that immediate success may be most available in these places.

To assure sustained success for the longer term, conduct work in ways that will improve the prevalence of social/emotional support in the population of people with disability in places with low resilience and high ACE prevalence. Work intensively in these areas with youth in transition and parenting adults. Given the data about Washington communities, these longer term strategies hold promise for delivering more communities with high resilience and lower ACE prevalence in the next generation. This short term/long term parallel strategy would continue valuable services in all parts of the state – with tailored approaches that better match the assets and readiness of the population and local community dynamics.

Co-Design community-specific strategies with local leaders, who can add valuable perspective and hold the keys to innovative and cost effective solutions to locally specific problems. When people co-design strategies, they are most likely to help with implementation of those strategies. Even though this report identifies patterns in the data, each community has a unique constellation of factors that fit together in dynamic ways to help or hinder DVR in achieving its mission.

Plan to invest in further analysis of the BRFSS data, once 2011 data is delivered to the state by the Centers for Disease Control and Prevention in mid-summer. Three consecutive years of BRFSS data will provide a larger number of completed surveys, which is necessary for identifying locally specific constellations of the factors discussed in this report. With analysis of data from 2009-2011, DVR will be able to make more precise plans for each community.

Establish communication infrastructure to support community to community sharing about how strategies and action agendas are informed by these data, and to share results from those strategies and actions.

Development of environmental strategies to augment individual strategies

Developing informal and formal mechanisms for increasing customer social emotional support, practical support, leadership and dialogue opportunities, and mounting a public education campaign about what's possible when we all commit to a culture of inclusion are all promising strategies for DVR to discuss and consider.

Work on improving the transportation system in places where transportation is a major barrier to employment. Promote working agreements among and between disparate transportation delivery systems can generate a seamless transportation system that meets the needs of many more people, including people with disabilities who need public transportation in order to get to work each day. A case study of Mason County success is in Livable and Sustainable Communities, Rural and small Town Case Studies; U.S. Dept. of Transportation, Federal Transit Administration, 2010, and on the web at:
http://www.fta.dot.gov/documents/Rural_MasonCounty.pdf

Example of Transportation System with Working Agreements among and between Many Providers, including Volunteers:

Mason Transit serves a population of over 50,000, some of whom have no other transportation options. Fixed and deviated route bus, dial-a-ride, volunteer driver, and park and ride services link passengers to work, medical care, and recreational sites. Through intercity worker/driver options and vanpools, commuters have access to regional employment centers. Annual ridership has grown from 60,000 to over 500,000.

Mason Transit develops important partnerships to expand service. One example is working with two school districts, combining school buses with fixed route public transit. Another is regular coordination with human service providers to also meet the transportation needs of low-income and homeless residents and veterans.

Key Community Partners include:
- ***Mason County Transportation Cooperative***
- ***Community Center Association***
- ***Washington State Department of Veteran Affairs***
- ***Disabled American Veterans Transportation Network***
- ***Shelton and North Mason School Districts***
- ***Lewis-Mason-Thurston County Area Agency on Aging***
- ***Squaxin Island Tribe and Skokomish Tribe***

Conclusion

In conclusion, each person with disability holds unique skills, strengths, vulnerabilities and potential. Employment is an extremely important foundation for expression of this potential, and provides an economic foundation for a safe, fulfilling and productive life. Unemployment among people with disabilities is highly correlated with lost days of functioning – and not significantly correlated with their disabling condition. This is good news – as people gain supports to more consistently engage in usual daily activities, the likelihood of becoming employed is improved.

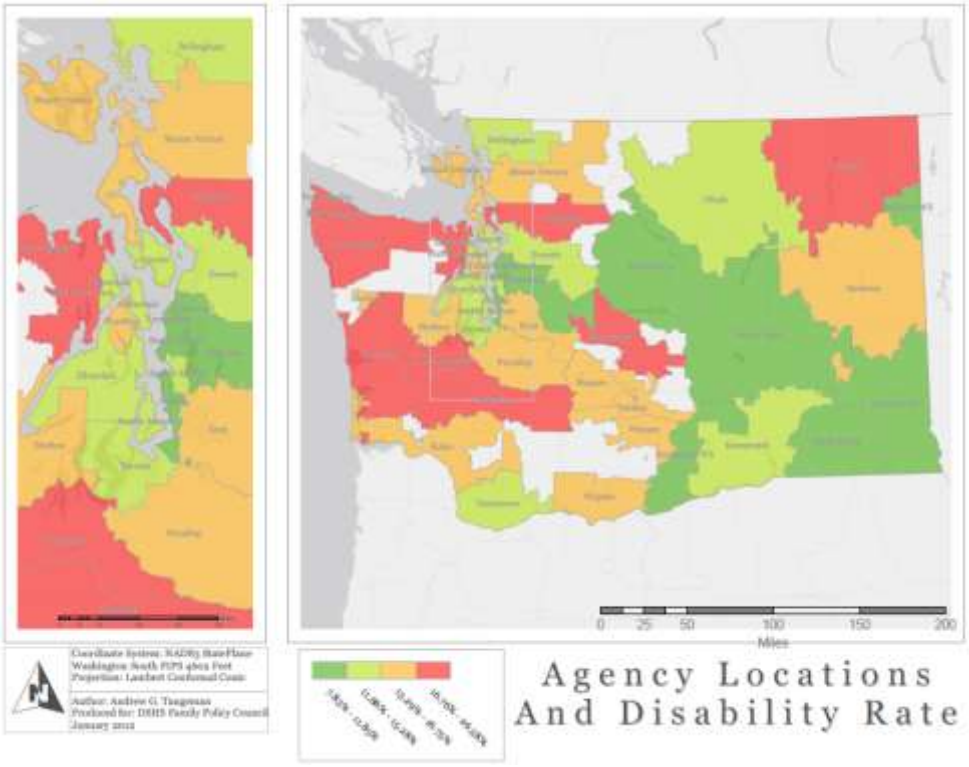
Findings from this analysis highlight the role of toxic stress and resiliency in the employability of people with a broad range of disabilities. There are patterns in the life histories of people with disabilities that are associated with lost days of functioning. Those patterns include a history of adversity in childhood and/or adulthood, challenges in developing and sustaining healthy relationships, chronic illness and work-related injury.

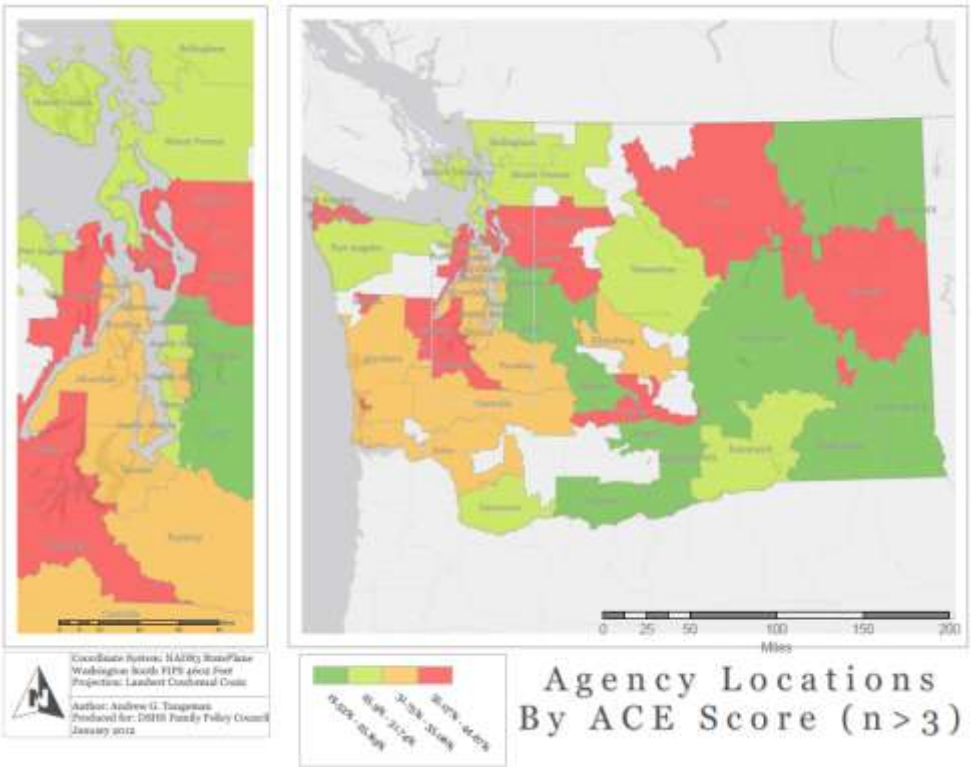
Significantly, both individual resilience factors, (such as social/emotional support and hope for one's future) and community capacity factors (such as norms for coming together to identify and solve problems, and expanding leadership to include people once marginalized) are powerful predictors of employment for people with disabilities. These patterns of stress and resilience factors can be used to help shape strategic action.

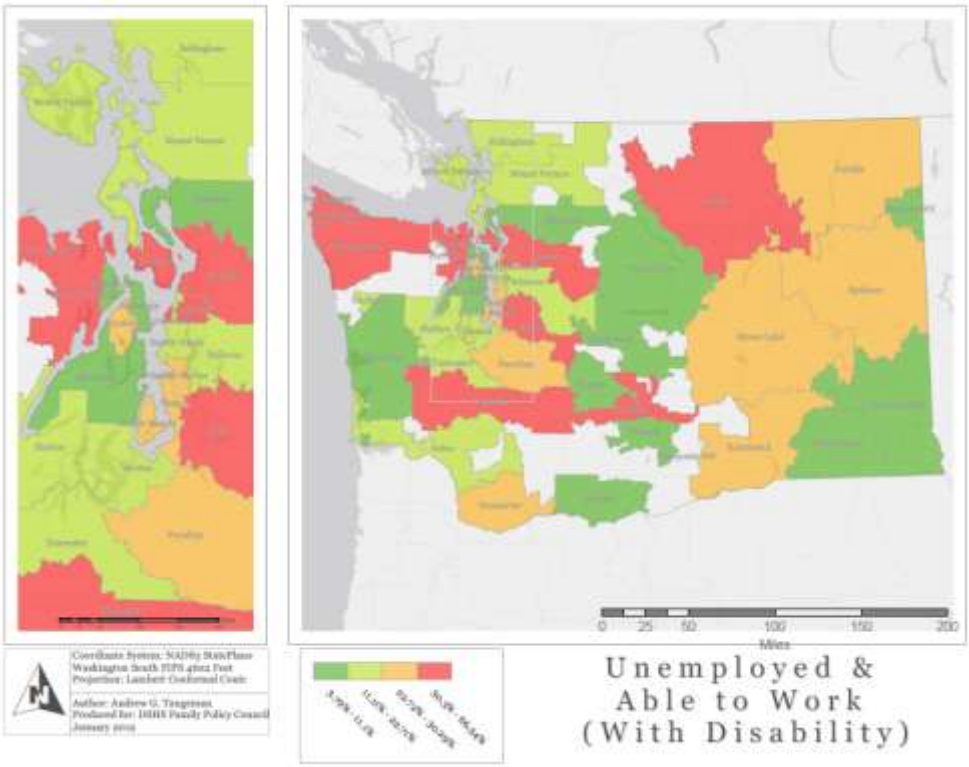
Targeted outreach, locally tailored action agendas that optimize use of many types of resources unique to each community, intentionally designing referral and skill building opportunities to improve individual and community resiliency, and investments in professional development are strategies with promise for dramatically improving employment among people with disabilities who currently have barriers to employment.

ATTACHMENTS

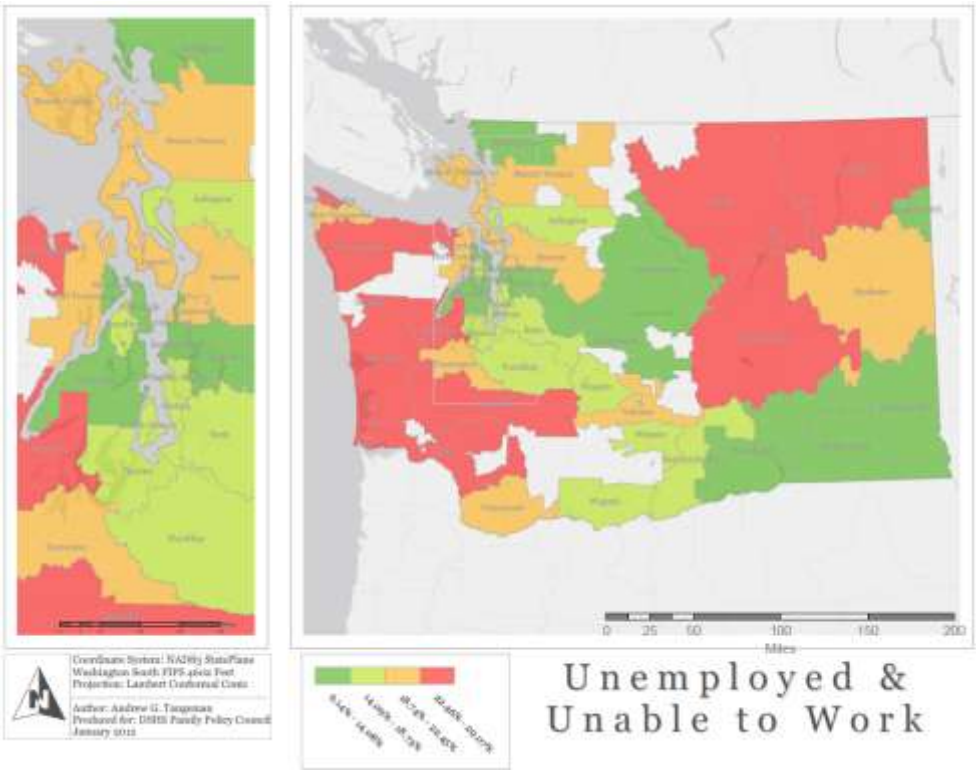
Attachment 1: Information by DVR Office Catchment Area







Unemployed & Able to Work (With Disability)



Unemployed & Unable to Work

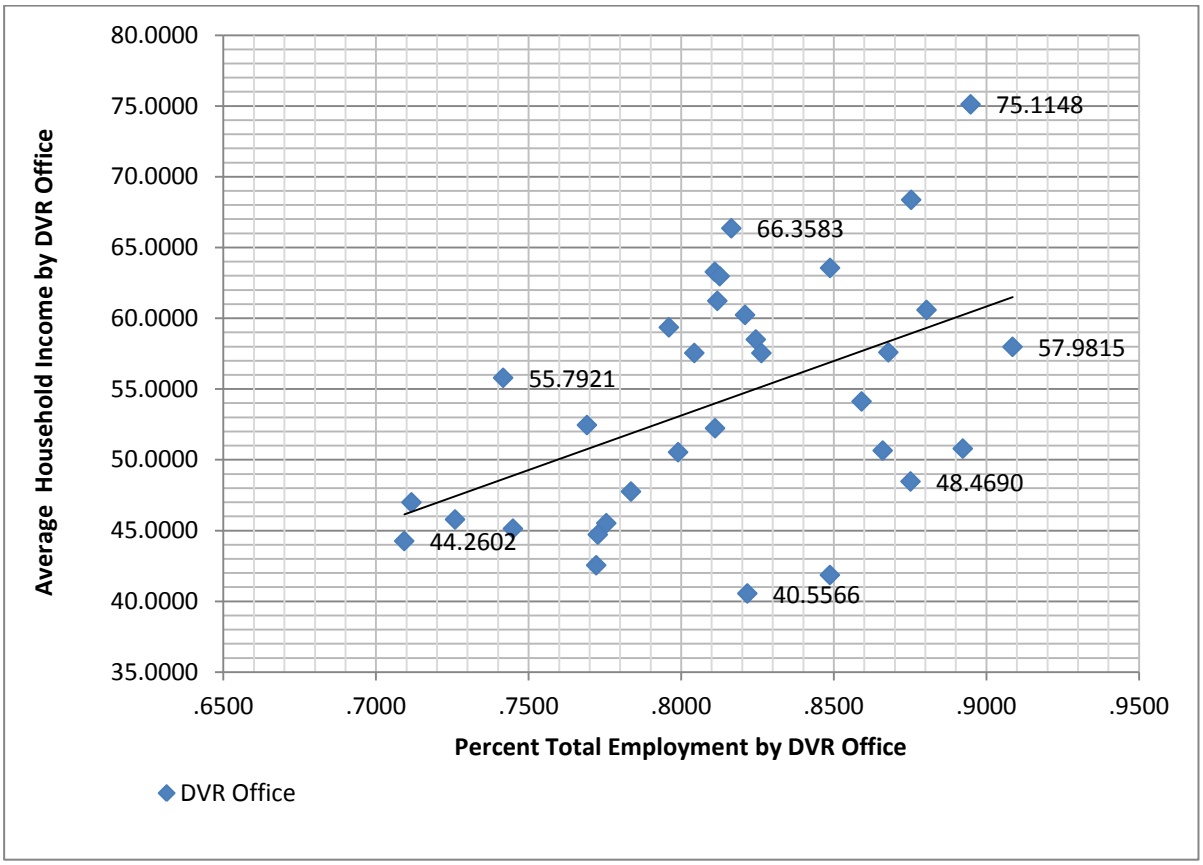
Employment by DVR office

Prevalence of ACEs, Disability and Unemployment by DVR Office Service Area

Division of Vocational Rehabilitation Office Name	ACEs		Disability		Resilience	Not Working	Unemployment	
					All adults	All adults	All Adults	Disabled
	3 + ACES	6-8 ACEs	Any disab.	High disab.	Social-emotional Support, Achiev., and Hope	Unable to Work & Unempl.	Unempl. among able to work	Unempl. among able to work
Centralia	35.10%	7.90%	17.20%	4.60%	52.50%	23.10%	15.50%	42.50%
Yakima	35.20%	9.90%	16.60%	4.70%	66.90%	21.60%	13.40%	34.10%
Aberdeen	32.40%	9.80%	16.90%	8.10%	66.40%	25.50%	13.20%	7.80%
Port Townsend	35.20%	7.70%	26.60%	4.90%	67.80%	22.40%	15.40%	49.60%
Kelso	33.20%	7.30%	16.80%	5.10%	61.20%	28.80%	17.20%	15.10%
Everett	37.00%	7.30%	15.30%	4.00%	68.10%	18.80%	14.50%	33.40%
Tumwater	39.30%	10.00%	21.70%	3.10%	70.30%	19.60%	14.90%	22.70%
Spokane	37.70%	8.60%	16.20%	3.80%	68.20%	18.90%	13.20%	30.30%
Port Angeles	31.60%	4.80%	19.60%	7.20%	71.60%	29.10%	22.20%	38.20%
Mount Vernon	30.60%	6.80%	16.60%	5.00%	68.10%	20.10%	10.70%	16.50%
Omak	38.10%	7.20%	14.60%	2.80%	61.40%	27.40%	18.50%	66.30%
Shelton	44.70%	6.00%	16.60%	3.20%	67.60%	25.80%	20.30%	12.30%
Wapato	23.30%	7.60%	15.30%	6.60%	62.10%	17.80%	12.20%	4.00%
Colville	19.60%	3.40%	18.90%	4.30%	62.70%	22.70%	16.90%	26.80%
Seatac	29.30%	11.00%	11.50%	2.40%	59.30%	17.40%	13.80%	26.30%
Moses Lake	24.40%	7.80%	11.60%	1.80%	74.00%	22.80%	17.30%	27.50%
Puyallup	31.90%	5.70%	15.90%	4.60%	73.00%	17.90%	11.70%	27.00%
Tacoma	33.10%	6.90%	12.50%	3.30%	70.00%	17.50%	12.60%	21.00%
Seattle Mercer	33.00%	5.10%	14.40%	3.60%	62.50%	18.70%	13.50%	29.90%
Vancouver	30.70%	6.70%	14.20%	4.30%	67.90%	20.40%	14.60%	29.80%
Kent	25.90%	4.20%	15.80%	3.00%	63.20%	18.30%	12.60%	38.30%
Wenatchee	30.10%	7.30%	11.40%	2.70%	65.60%	12.50%	9.30%	9.60%
Bellingham	31.70%	5.00%	12.20%	2.20%	68.00%	14.10%	11.40%	19.70%
Kennewick	28.50%	3.60%	13.40%	3.30%	72.40%	13.20%	8.20%	25.70%
Spokane WS	20.40%	3.40%	11.90%	2.90%	72.80%	13.40%	6.10%	3.80%
Lynnwood	25.50%	4.10%	11.60%	2.20%	73.40%	18.90%	16.60%	34.70%
Seattle North	26.20%	3.70%	10.60%	2.00%	69.90%	12.50%	9.10%	20.30%
Walla Walla	24.70%	0.90%	8.40%	0.90%	52.00%	9.10%	3.90%	9.80%
Sunnyside WS	20.50%	0.90%	7.80%	1.70%	44.50%	15.10%	7.90%	
Bellevue	19.50%	3.70%	9.10%	1.20%	71.60%	10.50%	8.80%	16.50%
Arlington	38.10%	8.30%	18.00%	6.00%	63.80%	15.10%	8.80%	11.10%
Ellensburg	33.00%	4.40%	18.70%	5.60%	77.90%	10.80%	7.00%	8.80%
Silverdale	32.30%	6.70%	14.00%	4.00%	69.30%	12.00%	6.40%	10.20%
Total statewide	30.30%	6.30%	14.00%	3.40%	67.80%	17.20%	12.20%	25.60%

Highest prevalence (top quartile)
Above median
Below median
Lowest prevalence (bottom quartile)

All persons unemployed (with and without disability score) who report being able to work


80.0000
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.7000
.7500
.8000
.8500
.9000
.9500
Average Household Income by DVR Office
Percent Total Employment by DVR Office
DVR Office
75.1148
66.3583
57.9815
55.7921
48.4690
44.2602
40.5566

Employment by DVR Office Catchment Area

	Household Income	tot empl	income	% unemp
Aberdeen	45.1343	.7449	45.1343	.1321
Arlington	63.5568	.8489	63.5568	.0878
Bellevue	75.1148	.8949	75.1148	.0884
Bellingham	54.1239	.8592	54.1239	.1141
Centralia	52.4558	.7692	52.4558	.1545
Colville	44.7154	.7728	44.7154	.1689
Ellensburg	50.7915	.8923	50.7915	.0705
Everett	61.2311	.8119	61.2311	.1455
Kelso	46.9912	.7117	46.9912	.1721
Kennewick	57.5943	.8680	57.5943	.0817
Kent	66.3583	.8165	66.3583	.1260
Lynnwood	63.2790	.8111	63.2790	.1658
Moses Lake	42.5504	.7722	42.5504	.1727
Mount Vernon	50.5379	.7991	50.5379	.1072
Omak	45.7845	.7260	45.7845	.1847
Port Angeles	44.2602	.7093	44.2602	.2224
Port Townsend	45.5197	.7755	45.5197	.1543
Puyallup	60.2382	.8210	60.2382	.1172
Seatac	57.5436	.8264	57.5436	.1381
Seattle Mercer	62.9722	.8127	62.9722	.1345
Seattle North	68.3704	.8754	68.3704	.0907
Shelton	55.7921	.7417	55.7921	.2033
Silverdale	60.5876	.8805	60.5876	.0643
Spokane	52.2309	.8112	52.2309	.1316
Spokane WS	50.6520	.8661	50.6520	.0611
Sunnyside WS	41.8589	.8488	41.8589	.0788
Tacoma	58.5025	.8245	58.5025	.1261
Tumwater	57.5467	.8044	57.5467	.1492
Vancouver	59.3592	.7960	59.3592	.1456
Walla Walla	57.9815	.9086	57.9815	.0391
Wapato	40.5566	.8218	40.5566	.1220
Wenatchee	48.4690	.8752	48.4690	.0930
Yakima	47.7570	.7836	47.7570	.1340

Attachment 2: BRFSS Questions Referenced in this Report

Disability

2 questions from CDC module (Section 10) on Disability

Are you limited in any way in any activities because of physical, mental, or emotional problems?
Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone? Include occasional use or use in certain circumstances.

And 'severe depression' based on Kessler scale of Mental Illness in CDC module

About how often during the past 30 days did you feel nervous — would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?
During the past 30 days, about how often did you feel restless or fidgety — all of the time, most of the time, some of the time, a little of the time, or none of the time?
During the past 30 days**,** about how often did you feel so depressed that nothing could cheer you up — all of the time, most of the time, some of the time, a little of the time, or none of the time?
During the past 30 days, about how often did you feel that everything was an effort — all of the time, most of the time, some of the time, a little of the time, or none of the time?
During the past 30 days, about how often did you feel worthless — all of the time, most of the time, some of the time, a little of the time, or none of the time?

Functional Impairment

From CDC module (Section 2) on 'healthy days' and (section 35) on 'Mental Illness'

Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?
During the past 30 days, for about how many days did a mental health condition or emotional problem keep you from doing your work or other usual activities? [Usual activities includes housework, self-care, caregiving, volunteer work, attending school, studies, or recreation.]

Resilience Index

'Emotional Support'

How often do you get the social and emotional support you need?	1 = Always 2 = Usually 3 = Sometimes 4 = Rarely 5 = Never 7 = Don't know/Not sure 9 = Refused

'Hope'

During the past 30 days, about how often did you feel hopeless — all of the time, most of the time, some of the time, a little of the time, or none of the time?	1 = All 2 = Most 3 = Some 4 = A little 5 = None 7 = Don't know / Not sure 9 = Refused

'Fairness - achievement/good fortune'

So far you have gotten the important things you want in life.	1 = Strongly Disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly Agree 7 = Don't Know/Not sure 9 = Refused

Labor Market

Based on quartiles (poor, below average, above average, good), statewide, of average total percentage of people working or not working ('unable to work' plus 'out of work')

In DVR office service areas (based on zip-codes obtained from DVR) among 18 to 64 year old adult respondents of the BRFSS survey, who were NOT 'retired' or 'homemakers.'

BRFSS Employment question:

Are you currently . . .?	1 = Employed for wages 2 = Self-employed 3 = Out of work for more than 1 year 4 = Out of work for less than 1 year 5 = A homemaker 6 = A student 7 = Retired 8 = Unable to work 9 = Refused

Chronic Illness

Based on respondents saying YES to one or more of the following:

Have you ever been told by a doctor that you have **diabetes**?
Have you ever been told by a doctor, nurse, or other health professional that you had **asthma**?
Has a doctor, nurse, or other health professional EVER told you that you had any of the following?

Heart attack, also called a myocardial infarction?
Angina or coronary heart disease?
Stroke?

Adverse Childhood Experiences Module Questions in Washington BRFSS, 2009, 2010

All questions refer to the time period before you were 18 years of age.
Now, looking back before you were 18 years of age--

1. Did you live with anyone who was depressed, mentally ill, or suicidal?
   1 Yes
   2 No
   7 Don't know / Not sure
   9 Refused
2. Did you live with anyone who was a problem drinker or alcoholic?
   1 Yes
   2 No
   7 Don't know / Not sure
   9 Refused
3. Did you live with anyone who used illegal street drugs or who abused prescription medications?
   1 Yes
   2 No
   7 Don't know / Not sure
   9 Refused
4. Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?
   1 Yes
   2 No
   7 Don't know / Not sure
   9 Refused
5. Were your parents separated or divorced?
   1 Yes
   2 No
   7 Don't know / Not sure
   8 Parents not married
   9 Refused
6. How often did your parents or adults in your home ever slap, hit, kick, punch or beat each other up?
   1 Never
   2 Once
   3 More than once
   Do not read:
   7 Don't know / Not sure
   9 Refused
7. Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking. Would you say---
   1 Never

2 Once
3 More than once
Do not read:
7 Don't know / Not sure
9 Refused

8. How often did a parent or adult in your home ever swear at you, insult you, or put you down?
1 Never
2 Once
3 More than once
Do not read:
7 Don't know / Not sure
9 Refused

9. How often did anyone at least 5 years older than you or an adult, ever touch you sexually?
1 Never
2 Once
3 More than once
Do not read:
7 Don't know / Not sure
9 Refused

10. How often did anyone at least 5 years older than you or an adult, try to make you touch them sexually?
1 Never
2 Once
3 More than once
Do not read:
7 Don't know / Not sure
9 Refused

11. How often did anyone at least 5 years older than you or an adult, force you to have sex?
1 Never
2 Once
3 More than once
Do not read:
7 Don't know / Not sure
9 Refused

Attachment 3: Community Capacity Index

The Family Policy Council Community Capacity Index is an important tool for communities to use to check their own progress toward the tipping point where five or more problem rates plummet at once. Leaders can use the index as a process evaluation tool and also as an invitation for meaningful reflective dialogue about how the community can progress toward realizing its values and goals. Scores from the index are highly correlated with problem rate reductions and with a decrease in the percent of youth aging into adulthood with three or more Adverse Childhood Experience Categories. The Index includes indicators of the dynamic movement through the four phases of the community capacity development model.

A. FOCUS ON RESULTS

Rate work on scale 1 (low) to 5 (high); for a maximum score of 20

1. The Network reports a body of work or strategic effort rather than single projects.
2. Measurable results are reported and verifiable.
3. Results are tied to community values/intentions as demonstrated by the link to the Network comprehensive plan and/or collaboration in the work being considered.
4. Network can demonstrate a logical link between current results and long-term reduction of problem behaviors.

Total Results Score ____

B. LEARNING

1. Network demonstrates and can articulate its own learning. (Analyzing data, making changes based on experience.)
2. Network draws connections between proposed projects and knowledge or research related to problem behaviors and related risk and protective asset or resiliency factors.

Total Learning Score ____

C. COMMUNITY STRATEGIC LEADERSHIP

1. Efforts are clearly linked to Network strategic plan.
2. The work reflects meaningful community collaboration.
3. Network provides leadership in the community as demonstrated by community involvement in strategic planning, implementing the plan or leveraging resources.
4. The Network is able to leverage resources through partnerships, grants and/or selection of pilot programs that are later funded or replicated by others.
5. Efforts show signs of being either replicable or institutionalized within the community OR efforts result in resolution of a defined community issue.
6. The community demonstrates support for Network efforts. (Board membership, event participation, program evaluation, etc.)

Total Strategic Leadership Score ____

D. COMMUNITY OUTCOMES

1. Intermediate and long term outcomes are stated clearly in writing, outcome measurement methodology improves over time, and results are useful and credible for helping the community develop strategic system and program improvements.
2. The community tracks indicators of "at risk" behavior rate indicators, and engages in public dialogue about how to reduce the rates of "at risk behaviors".
3. There is a positive correlation between the degree to which the community network has focused on reduction of a particular "at risk behavior" and indicator(s) of the rate of that behavior.

Total Community Outcomes Score ____

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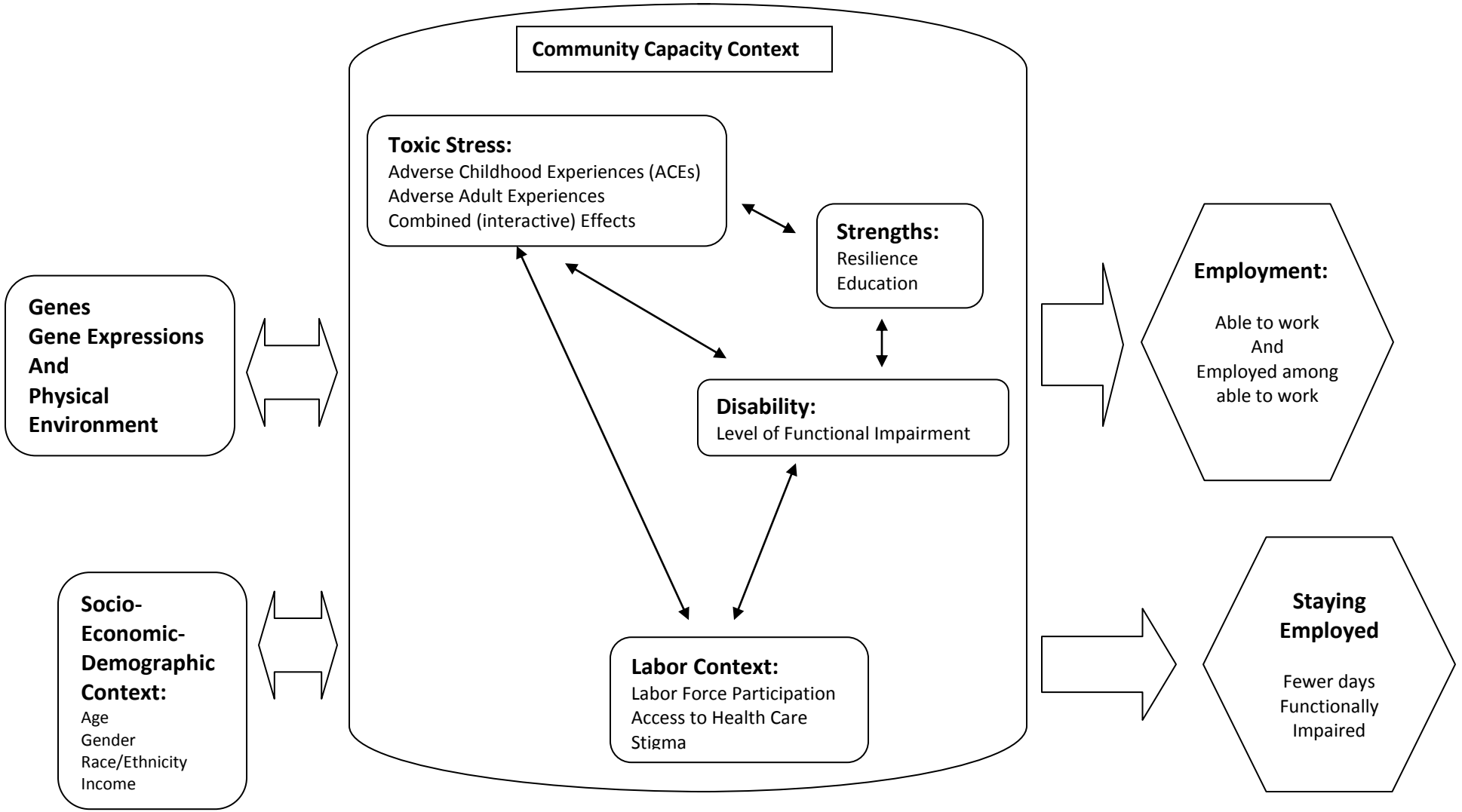
Bivariate Statistics 65

Correlation Matrix (All Adults)
Correlation Matrix (People with Disability Related Functional Impairment)

Theoretical Model



Univariate Statistics

Variables		Mean	Standard Error
Employment	Not employed among those able to work (0,1)	0.122	0.005
	Unable to work (0,1)	0.057	0.003
	Number days impaired (0-30)	3.809	0.110
Disability - Functional Impairment	Any disability / functional Impairment (0,1)	0.158	0.004
	Disability index (0-3: no, low, mod., high)	0.261	0.007
Stressors	ACEs 3 or more (0,1)	0.303	0.006
	ACEs 6 to 8 (0,1)	0.063	0.003
	Severe depression (0,1)	0.072	0.004
	Chronic illness (diab. asthma & any heart CV: 0,1)	0.223	0.005
	Work injury or illness (0,1)	0.058	0.004
	Divorced or separated (0,1)	0.100	0.003
	History of homelessness (0,1)	0.064	0.006
	History of Incareceration (0,1)	0.068	0.007
Strengths	Education level: higher than HS (0,1)	0.701	0.006
	Education in years	13.968	0.030
	Resilience index (0-12)	9.910	0.038
	High resileinece (0,1)	0.678	0.008
	Soc emot support (1- 5 = high)	4.206	0.011
	High soc emot support (always often: 0,1)	0.828	0.005
	Good fortune(gotten imp things in life: 1-5)	4.056	0.017
	High good fortune (Str agree, agree: 0,1)	0.770	0.007
	Hope (1-5=high)	4.624	0.010
	High hope (never feel hopeless: 0,1)	0.752	0.006
Community Capacity Context	High Community Capacity (above threshold: 0,1)	0.366	0.005
SES and Dem. Context	Age in years	40.518	0.178
	Geneder (male = 1, 0)	0.504	0.006
	Income in dollars (household)	59.159	0.374
	White Non Hispanic (0,1)	0.796	0.005
Labor Context	Good labor participation rate (0,1)	0.266	0.005
	No access to health care (0,1)	0.318	0.008
	High stigma (not caring/sympathetic: 0,1)	0.437	0.006

Multi-variate Analyses (Linear and Logistic Regressions)

Major Findings of Multivariate Analyses of Toxic Stress, Disability Related Functional Impairment, Strengths, Community Context, and Employment;
Independent of Socio-Economic and Demographic Characteristics

Table 1: Functional Impairment Index and Employment
Disability Index (that includes degree of functional impairment) *is highly predictive of ability to work and employment among those able to work.*

- Compared to those with low impairment, the odds of being unable to work are:
  71% lower for people with high impairment
  54% lower for people with moderate impairment
- Compared with people able to work with no impairment, the odds of being employed are:
  85% lower for people with high impairment
  75% lower for people with moderate impairment
  47% lower for people with low impairment
- Odds are higher for people with education and for people living in places with good labor participation.

Table 2: Toxic Stress and Functional Impairment

- *People with high levels of adverse childhoods experiences (ACEs) and/ or adult stress (depression*, chronic illness, work-related injury, history of homelessness, incarceration, and divorce or separation) *are more likely to have higher degrees of functional impairment*. The odds of having any impairment are 23% higher if people have 3 or more ACEs and 67% higher if have 2 or more adult stressors.
- *The combination of toxic stress in childhood and in adulthood* (interactive effects of having stressors in both periods of one's life) *leads to even higher degree of functional impairment*. The interaction term for the combination of toxic stress is highly significant and makes the main effects of childhood and adult stress almost insignificant.

Table 3: Community Context – Characteristics Associated with Different Levels of Labor Participation
Areas with lower labor participation have the following characteristics for all adults and people with disability:

- Higher prevalence of ACEs and many adult adverse experiences
- Higher degree of disability/functional Impairment, particularly higher impairment
- Higher average number of days Impaired
- Poorer access to health care
- Lower average level of education
- Lower average household incomes
- Few, if any, differences in race/ethnicity and gender
- Small differences in resilience and community capacity

Table 4: Strengths: Education and Resilience (Social and Emotional Support, Good Fortune, and Hope)

- *Resilience is less frequent among people with childhood and/or adult stressors and functional impairment, even among those with higher levels of education* (See negative coefficients for stress variables: number of ACEs and number of adult stressors).
- *Level of education is higher for people with higher resilience, even among people with childhood and/or adult stressors and functional impairment* (see positive coefficient for the resilience variable).

Table 5: Employment: Role of Education and Resilience

- *Education and resilience increase the likelihood of employment, regardless of levels of stress and functional impairment.* Among all adults, odds of employment are31% higher for education and 42% higher for resilience. Among people with disability, odds of employment are 26% higher for education and 157% higher for resilience.
- *Resilience is more effective in increasing the likelihood of employment in places with high labor participation.* Among all adults, odds of employment are 81% higher and more than double among people with disability.
- Among those who are employed, *resilience decreases the number of days lost due to impairment for all adults and for those with disabilities* (see negative coefficients, decreases in number of days associated with higher resilience).

Table 6 (all adults) and Table 7 (people with disabilities): The effects of Community Capacity (last 15 years)

Younger adults (18-34) who live in places with higher community capacity, compared to those living in lower community capacity places, are more likely to have the following:

- *Less toxic stress: Lower levels of Adverse Childhood Experiences (ACEs)*
  Among all adults, the odds of having 3 or more ACEs are 33% less
  Among people with disabilities, the odds of having 3 or more ACEs are 57% less
- *More Strengths: Greater resilience and higher levels of education* (see positive coefficients):
  Among all adults, the odds of having high resilience are 50% higher.
  Among people with disabilities, the odds of having high resilience are 100% higher (double).
- *More employment among those living in places with high labor participation*
  Among all adults, the odds of employment are more than triple.
  Among people with disabilities, the odds of employment are double
- *Fewer days lost due to impairment among those who are working in places with high labor participation* (see negative coefficients).

Major Findings

Table 1

Significance of Effects of Levels of Disability Related Functional Impairment (in Disability Index: No, Low, Moderate, High Impairment)
On Ability to Work and Employment among those Able to Work Controlling for Socio-Economic-Demographic Factors
For adults age 18 to 64 among BRFSS respondents in 2009-10

	Ability to Work Among all Persons with Any Disability Related Functional Impairment	**Employment Among Able to Work (all adults)**
Variables	**Logistic Regression OR's**	**Logistic Regression OR's**
Levels of Disability Related Functional Impairment		
Low		.528***
Moderate	.456***	.248***
High	.290***	.148***
SES & Dem.		
Age in years	.998	1.005
Gender (male)	.837	.847*
African Amer.	.467 trend	.495**
Native Amer.	1.103	.508**
Other –Mixed	.568	.648*
Hispanic	1.325	1.122
Asian – HPI	3.677*	.909
Education	1.543***	1.422***
Community Context		
High Labor Participation	1.296	1.489***
Intercept	.617	1.345
Model fit R^2	.150	.092
Model Sign F	5.69***	19.58***
Sample size N	1,479	10,595

Definitions: ORs : odds ratios. tr. $p \leq .10$ (trend), *: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$

Notes: Hi Lab Part.: High (top quartile) Labor Participation dummy / Race-ethnicity reference group is 'Non-Hispanic White'

Table 2

Significance of Effects of ACEs, Adult Stressor, and Their Interaction
On Disability-related Functional Impairment Controlling for Socio-Economic-Demographic Factors
For all adults age 18 to 64 among BRFSS respondents in 2009-10

Variables	Any Disability Related Functional Impairment (all adults)		Level of Disability Related Functional Impairment (all adults)	
	Logistic Regression OR's		Linear Regression *b*'s	
	Stage 1	Stage 2	Stage 1	Stage 2
Stress				
ACEs (0-8)	1.299***	1.226***	.045***	.013
Adult Stressors (0-6)	2.124***	1.672***	.202***	.049*
Interaction ACEs & Adult Stressors		1.074*		.051***
SES & Dem.				
Age in years	1.009	1.010	.001	.002 trend
Gender (male)	.664**	.656**	-.037 trend	-.048*
African Amer.	2.024	1.999	.239	.238
Native Amer.	.797	.791	-.069	-.063
Other –Mixed	1.492	1.414	.109	.044
Hispanic	.775	.792	-.016	-.088
Asian – HPI	1.067	1.028	.022	.005
Income	.939	.930	-.006	-.011
Strengths				
Education Level	1.116	1.140	.002	.012
Intercept	.034***	.036***	-.020	.010
Model fit R^2	.202	.205	.166	.199
Model Sign F	13.21***	12.30***	8.14***	10.72***
Sample size N	2,361	2,361	2,361	2,361

Definitions: ORs : odds ratios *b* s : regression coefficient trend: $p \leq .10$ (trend), *: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$
Notes: Hi Lab Part.: High (top quartile) Labor Participation dummy / Race-ethnicity reference group is 'Non-Hispanic White

Table 3

Characteristics Associated with Places with Different Labor Participation Rates

		Labor Participation Quartiles Among DVR Office Service Areas							
		Among All Adults (age 18-64)				Among People with Dis/Funct Imp.			
Characteristics		Poor: lowest quartile	Below average	Above average	Good: top quartile	Poor: lowest quartile	Below average	Above average	Good: top quartile
Employment	Unemployed among able to work	0.17	0.14	0.12	0.08	0.26	0.29	0.26	0.19
	Unable to work	0.10	0.06	0.06	0.04	0.36	0.28	0.26	0.21
	Number days impaired	4.98	4.16	3.93	2.85	10.77	9.57	9.37	7.17
Disability Functional Impairment	Any disability / functional Impairment	0.18	0.18	0.16	0.13				
	Disability / functional impairment low					0.53	0.56	0.56	0.64
	Disability / functional impairment modrerate					0.19	0.21	0.21	0.18
	Disability / functional impairment high					0.28	0.23	0.23	0.18
Childhood and Adult Stressors	ACEs 3 or more	0.32	0.34	0.30	0.25	0.54	0.54	0.49	0.52
	ACEs 6 to 8 dummy	0.07	0.08	0.07	0.04	0.20	0.17	0.15	0.13
	Severe depression	0.09	0.08	0.08	0.06	0.34	0.32	0.33	0.31
	Chronic ilness (diabetes asthma and heart CV)	0.23	0.23	0.23	0.21	0.36	0.36	0.40	0.36
	Work injury or illness	0.07	0.07	0.06	0.04	0.11	0.11	0.14	0.11
	Divorced / separated	0.12	0.11	0.10	0.09	0.21	0.19	0.17	0.19
	History of homelessness	0.07	0.07	0.07	0.05	0.23	0.15	0.24	0.13
	History of incarceration	0.09	0.08	0.08	0.03	0.28	0.10	0.22	0.06
Strengths	Education level: higher than HS	0.58	0.69	0.69	0.77	0.55	0.65	0.62	0.74
	High resilience	0.64	0.69	0.66	0.70	0.30	0.38	0.36	0.36
	High soc. emot support	0.78	0.83	0.83	0.84	0.58	0.65	0.65	0.66
	High good fortune	0.76	0.78	0.74	0.80	0.53	0.60	0.56	0.60
	High hope	0.76	0.73	0.74	0.78	0.47	0.37	0.39	0.46
	Living in a high Community Capacity place	0.24	0.29	0.50	0.33	0.19	0.27	0.50	0.34
SES and Dem.	Age in years	41.38	40.18	40.41	40.83	43.59	41.28	43.22	44.74
	Gender (male)	0.52	0.50	0.49	0.52	0.54	0.45	0.40	0.43
	Income (thousand of dollars per household)	47.15	56.53	59.62	65.76	35.27	43.46	47.81	52.83
	White (non Hispanic)	0.81	0.82	0.77	0.79	0.87	0.84	0.76	0.83
Contextual Barriers	No access to health care	0.40	0.33	0.33	0.25	0.63	0.54	0.55	0.36
	Higher stigma	0.39	0.44	0.45	0.43	0.55	0.53	0.54	0.52

Table 4

Significance of Effects of ACEs, Adult stressors, Functional Impairment, and Community context On Years of Education and Resilience, Controlling for Socio-Economic and Demographic Factors For all adults age 18 to 64 among BRFSS respondents in 2009-10

Variables	Education (in years) (all adults) Linear Regression *b*'s		Resilience Index (0-12) (all adults) Linear Regression *b*'s	
	Stage 1	Stage 2	Stage 1	Stage 2
Stress				
ACEs 0-8)	- .163***	- .146***	- .140***	- .129***
Adult Stressors (0-6)	- .396***	- .322**	- .297***	- .254**
Interaction ACEs & Adult Stressors	- .048 trend	- .063*	- .046 trend	- .002
SES & Dem.				
Age in years	.032***	.029***	.008*	.010**
Gender (male)	- .110	- .089	- .184*	- .226
African Amer.	- 1.478	- 1.690	- .267	- .048
Native Amer.	- .177	- .282	- .366	.308
Other –Mixed	.169	.165	- .302	- .260
Hispanic	- 2.492***	- 2.351***	.087	.085
Asian – HPI	.951***	.840***	- .550**	- .544**
Income			.190***	.179***
Disability Index		.090		- .920***
Strengths				
Education Level			- .046	- .033
Resilience (low to high)		.238**		
Community Context				
High Labor Participation		.345***		
Intercept	13.67***	12.14***	9.39***	9.40***
Model fit R^2	.203	.215	.168	.228
Model Sign F	28.50***	26.24***	11.06***	15.05***
Sample size N	2,558	2,519	2,326	2,326

Definitions: *b* s : regression coefficients trend: $p \leq .10$ (trend), *: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$

Notes: Hi Lab Part.: High (top quartile) Labor Participation dummy / Race-ethnicity reference group is 'Non-Hispanic White

Table 5

Significance of Effects of ACEs, Adult Stressors, Functional Impairment, Education, Resilience, and Community Context On Likelihood of Employment and Number of Impaired Days Once Employed, Controlling for Socio-Econ.-Demographic Factors For all adults age 18 to 64 and people with disabilities among BRFSS respondents in 2009-10

Variables	Employment (all adults)				Employment (people with disabilities)				Days Impaired if Employed (Log)	
									All adults	With disabilities
	Logistic Regression OR's				Logistic Regression OR's				Linear Regression *b* s	
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 1	Stage 2	Stage 3	Stage 4	Final Stage	Final Stage
Stress										
ACEs	.774**	.832*	.934	1.036	.858	.986	1.005	1.026	.013**	.012
Sev. Depression	.237***	.395***	.483**	.552**	.387***				.113**	.189**
Chronic Illness	.632	.680**	.655**	.658**	.779				.069***	.096*
Divorce/Separate									.023	- .025
SES & Dem.										
Age in years	1.006 tr.	1.008*	1.004	1.002	.998	1.006	.991	.988	.001	- .004
Gender (male)	.815*	.805*	.859	.807 tr.	.855	.839	1.001	.997	.013	.030
African Amer.	.519*	.518*	.583 tr.	.627	.448 tr.	.392 tr.	.279 tr.	.216*	.063	.642***
Native Amer.	,538*	.528*	.576 tr.	.877	1.012	1.049	1.135	1.545	- .056	- .309***
Other –Mixed	.746	.762	.864	1.109	.680	.451*	.536	.667	.065	.262*
Hispanic	.964	.904	1.404	1.563 tr.	1.370	.955	1.010	1.425	- .018	.070
Asian – HPI	1.109	1.067	1.336	1.386	5.026*	3.870*	1.800	1.886	- .027	.009
Income									.003	.014
Disability Index		.610***	.640***	.693***		.504***	,513***	.581***	.196***	.147***
Strengths										
Education Level			1.436***	1.308***			1.464**	1.258*	.007	- .036 tr.
Resilience			1.699***	1.417*			2.889***	2.574**	- .050*	- .104*
Comm. Context										
High Labor Participation				1.337				1.808	- .007	- .031
Int. Resilience				1.812*				13.831*	- .120**	
Stigma				.701*				.885		
Health Access				.549***				.569***		
Intercept	10.03***	9.78***	1.16	2.47*	.576***	8.42***	1.383	3.260	.486**	.486**
Model fit R^2	.066	.083	.143	.183	.086	.101	.216	.267	.158	.201
Model Sign F	13.46***	16.6***	13.69***	12.09***	2.69**	4.43***	3.90***	4.42***	13.69***	8.96***
Sample size N	8,879	8,879	5,061	4,904	1,284	1,446	783	768	3,274	712

Definitions: *b* s : regression coefficients. ORs : odds ratios. tr.: $p \leq .10$ (trend), *: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$

Notes: Hi Lab Part.: High (top quartile) Labor Participation dummy; Race-ethnicity reference group is 'Non-Hispanic White'

Table 6

Differences in ACEs, Resilience, Education Level, Likelihood of Employment and Impaired Days Once Employed Associated with Growing up in Higher Community Capacity Places, Controlling for Socio-Econ.-Demographic Factors, For all younger adults, age 18 to 34 in 2009-10, among BRFSS 18-64 year old respondents

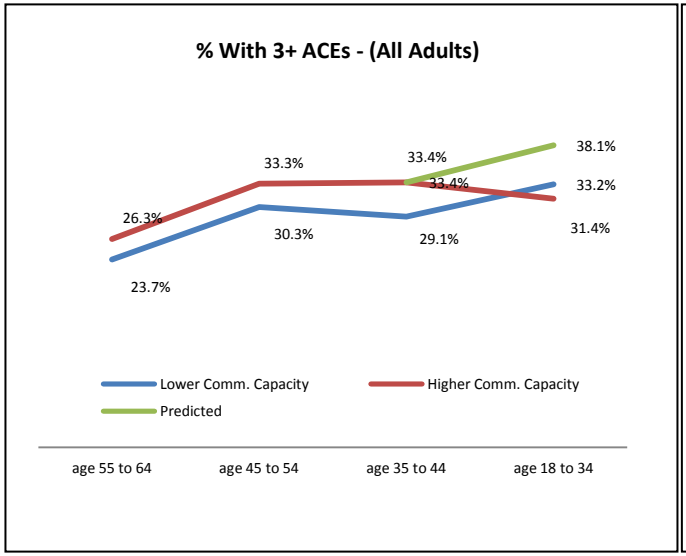
Variables	ACE score: # ACES (0-8)		Higher ACE Score: 3 or more ACEs		Resilience (Having high resilience)		Education Level (# years of educ.)		Being Employment (Among able to work)		# Days Impaired (If employed)	
	Linear Regression		Logistic Regression		Logistic Regression		Linear Regression		Logistic Regression		Linear Regression	
	b s	T- tests	ORs	T- tests	ORs	T- tests	*b* s	T- tests	ORs	T- tests	*b* s	T- tests
Interaction Effects:												
Young Age & Com.Capacity	-.498	-2.51**	.666	-1.66*	1.50	2.24*	.210	1.85*				
Young Age & Com.Capacity & Hi Lab. Part.									3.75	2.72**	-1.833	-3.82***
Main Effects												
Age (years)	-.010	-4.71***	.990	4.21**	1.01	1.67*	.160	12.61***	1.005	1.30	.012	1.14
Age Squared							-.002	-10.94***				
Com. Capacity	.083	1.71*	1.088	1..50 tr.	1.06	.67	-.074	-1.33	.971	-.31	.589	2.18*
High Labor Participation									1.346	2.54**	-.004	-.02
Socio-Econ & Demographic												
Gender (male)	-.337	-7.05***	.694	-6.49***	.808	-2.56*	-.080	-1.48	.879	-1.41	-.139	-.63
Education	-.251	-7.75***	.795	-6.96***	1.16	2.97**			1.478	8.13***	-.256	-1.98*
Income	-.110	-6.58***	.902	-6.11***	1.38	13.01***					-.147	-1.85*
African Amer.	-.366	-2.38*	.781	-1.10	.779	-.72	-.727	-2.87**	.489	-3.14**	2.812	1.53
Native Amer.	1.144	4.45***	1.801	2.48**	.858	-.46	-1.315	-5.94***	.552	-2.09*	.098	.12
Other –Mixed	1.025	5.40***	2.162	5.14***	.591	-2.29*	-.566	-3.75***	.596	-2.19*	1.311	1.26
Hispanic	-.730	-6.65***	.471	-5.45***	1.41	1.90*	-3.00	-18.55***	1.293	1.37	-.057	-.12
Asian - HPI	-.770	-6,52***	.399	-4.22***	.553	-2.82**	.805	7.05***	.968	-.14	.051	.09
Intercept	4.475	16.44***	5.266	8.28***	.110	-7.11***	13.389	110.90***	.899	-.38	3.784	4.64***
Model fit R^2	.076		.070		.151		.175		.057		.017	
Model Sign F	38.05***		24.92***		25.92***		84.14***		11.74***		3.78***	
Sample size N	12,278		12,278		6,261		14,109		10,595		3,842	

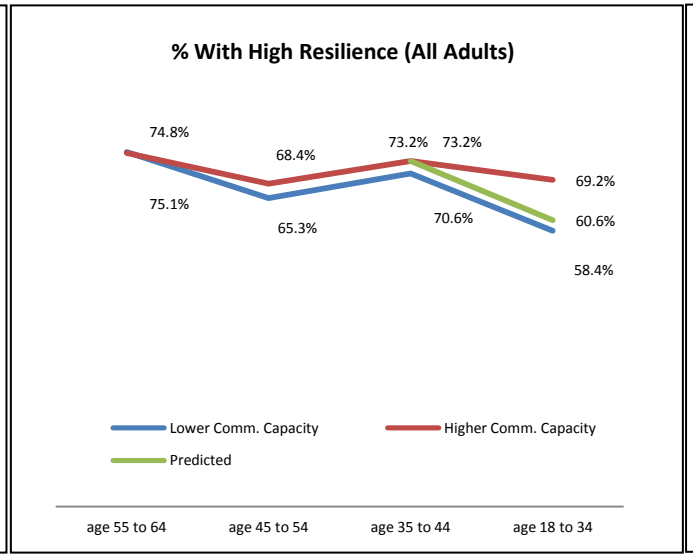
Definitions: *b* s : regression coefficients. ORs : odds ratios.
tr.: $p \leq .10$ (trend), *: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$

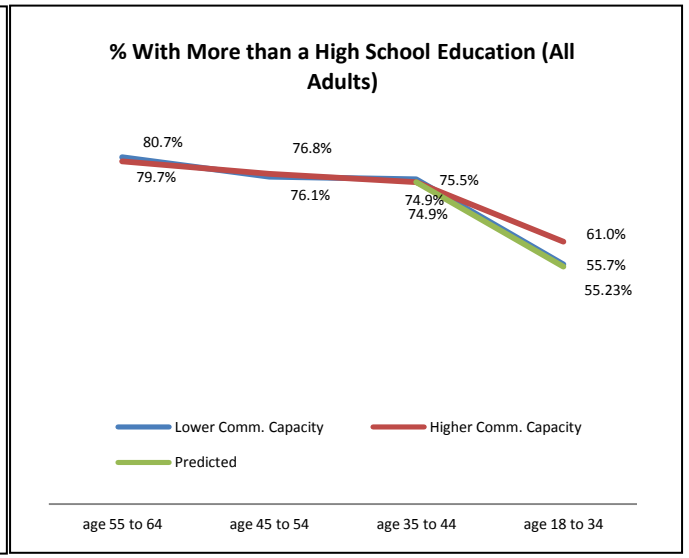
Notes: Young Age: 18-24 years for ACEs 18 to 34 for other variables / 'Com. Capacity': High (above threshold) Community Capacity dummy ' / 'Hi Lab Part.: High (top quartile)

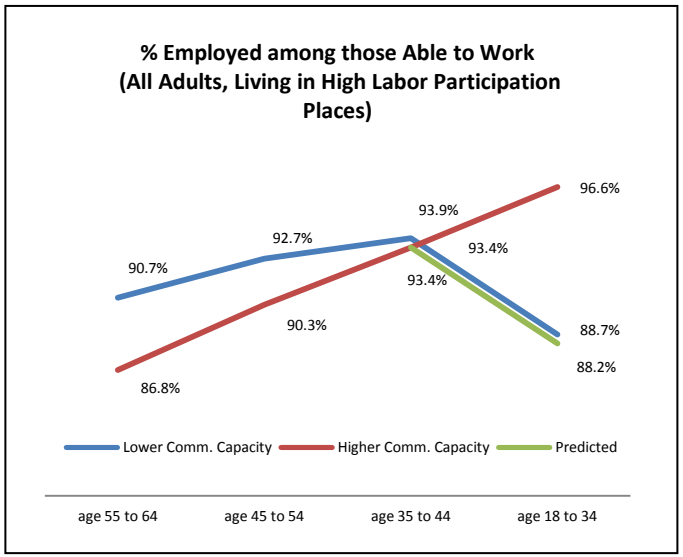
Labor Participation dummy / Age Squared term controls for curvilinear relation of age / Race-ethnicity reference group is 'Non-Hispanic Whites'

Differences in ACEs, Resilience, Education Level, Likelihood of Employment and Impaired Days Once Employed Associated with Growing up in Higher Community Capacity Places
For all younger adults, age 18 to 34 in 2009-10, among BRFSS 18-64 year old respondents









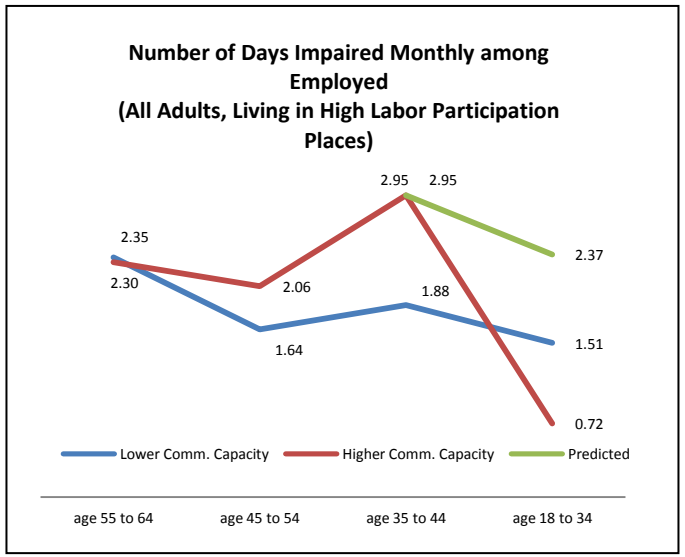


Table 7

Differences in ACEs, Resilience, Education Level, Likelihood of Employment and Impaired Days Once Employed Associated with Growing up in Higher Community Capacity Places, Controlling for Socio-Econ.-Demographic Factors For younger adults with a disability related functional impairment in 2009-10 among BRFSS 18-64 year old respondents

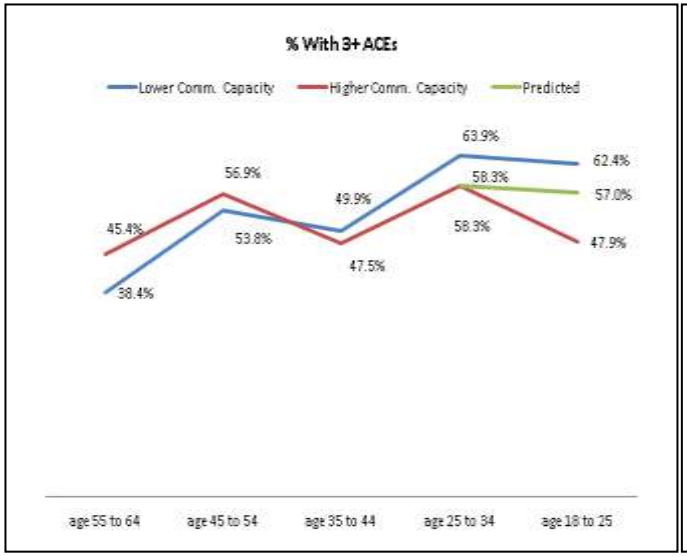
Variables	ACE score: # ACES (0-8)		Higher ACE Score: 3 or more ACEs		Resilience (Having high resilience)		Education Level (# years of educ.)		Employment (Among able to work)		# Days Impaired (If employed)	
	Linear Regression		Logistic Regression		Logistic Regression		Linear Regression		Logistic Regression		Linear Regression	
	b s	T- tests	ORs	T- tests	ORs	T- tests	*b s*	T- tests	ORs	T- tests	*b s*	T- tests
Interaction Effects:												
Young Age & Com.Capacity	-.813	-1.52 tr. *(p=.07)*	.432	-1.58 tr. *(p=.06)*	2.019	1.79*	.360	1.33 tr. *(p=.09)*				
Young Age & Com.Capacity & Hi Lab. Part.									1.99	1.65*	-3.662	-1.66*
Main Effects												
Age (years)	-.026	-4.57***	.982	-3.40***	1.016	1.83*	.100	3.55***	1.07	1.44 tr.	-.059	-1.70*
Age Squared							-.001	-2.55***	.999	-1.48 tr.		
Com. Capacity	.109	.87	1.097	.77	1.035	.20	-.172	-1.41 tr.	.795	-1.22	.857	.95
High Labor Participation										ns ¶		ns
Socio-Econ & Demographic												
Gender (male)	-.324	-2.55**	.738	-2.53**	.749	-1.64*	-.305	-2.39**	.770	-1.39 tr.	.647	.83
Education	-.417	-5.84***	.730	-4.92***	1.250	2.09**			1.625	5.09***	-.991	-2.32**
Income	-.099	-3.39***	.929	-2.74**	1.365	6.89***					.135	.60
African Amer.	-.472	-1.31	.780	-.54	.381	-1.20	.346	.97	.479	-1.44 tr.	9.396	2.68**
Native Amer.	.731	1.65*	1.661	1.18	.550	-.94	-.256	-1.08	1.150	.23	-2.950	1.99*
Other –Mixed	1.348	4.08***	2.554	3.55***	.536	-1.64*	-.553	-1.95*	.649	-1.09	6.270	1.80*
Hispanic	-.016	.05	1.015	.05	.856	-.43	-1.633	-4.02***	1.334	.71	.150	.12
Asian - HPI	-.884	-1,77*	.482	-1.35 tr.	.613	-.72	.547	1.38 tr.	2.885	1.57 tr.	-.417	.24
Intercept	6.770	16.44***	4.266	6.99***	.017	-6.43***	11.137	18.84***	.088	-2.28*	11.167	4.30***
Model fit R^2	.115		.090		.203		.068		.098		.083	
Model Sign F	13.33***		7.60***		9.37***		7.09***		3.63***		2.08**	
Sample size N	2,413		2,413		1,306		2,707		1,480		823	

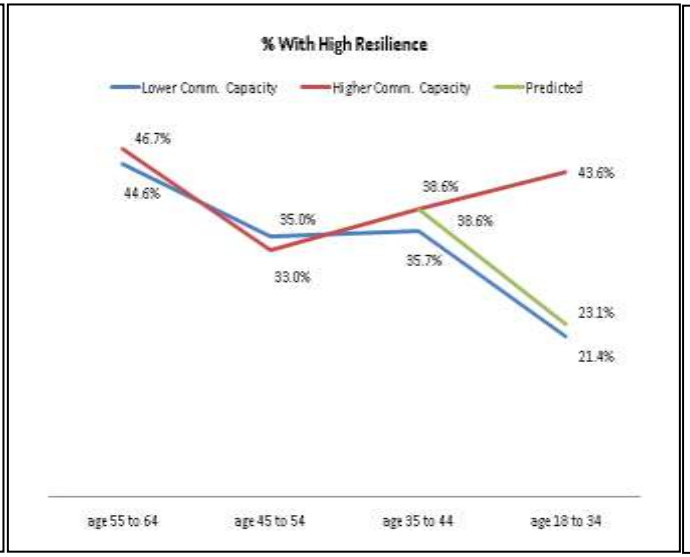
Definitions: b s : regression coefficients. ORs : odds ratios.
tr.: $p \leq .10$ (trend), *: $p \leq .05$, **: $p \leq .01$, ***: $p \leq .001$, ns.: not significant and omitted

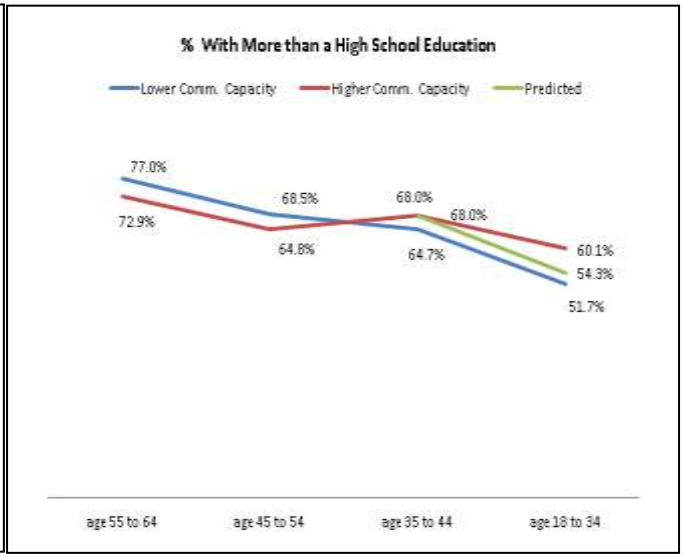
Notes: Young Age: 18-24 years for ACEs, 18 to 34 for other variables /'Com. Capacity': High (above threshold) Community Capacity dummy / 'Hi Lab Part.: High (top quartile) Labor Participation dummy / Age Squared term controls for curvilinear relation of age / Race-ethnicity reference group is 'Non-Hispanic White

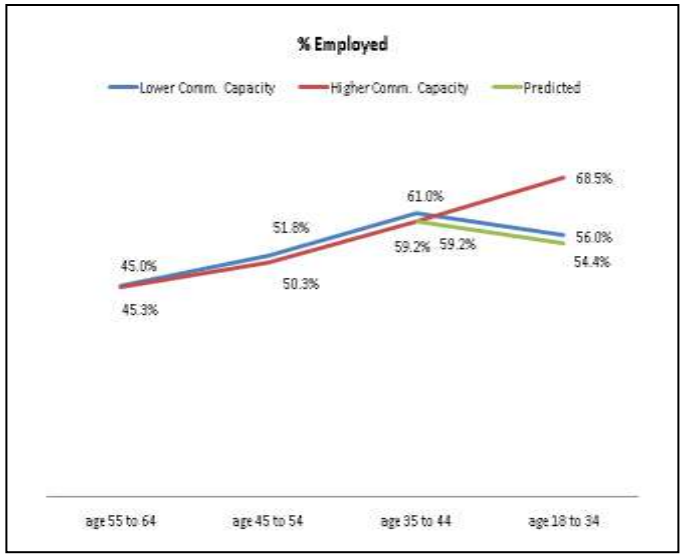
Line Charts for Table 7

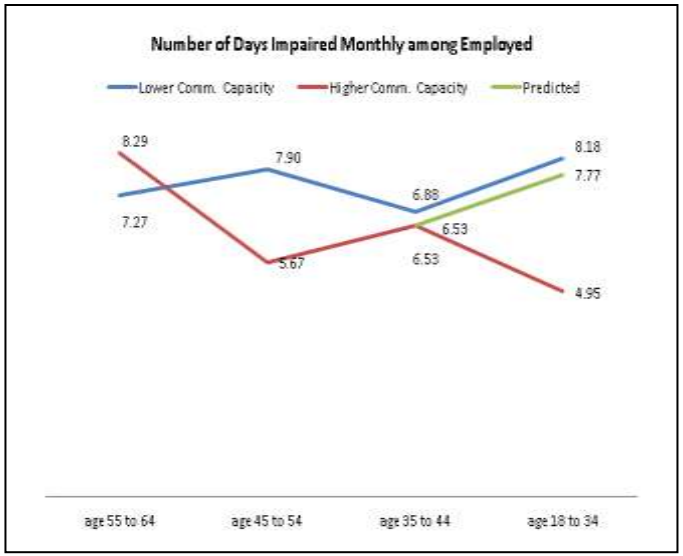
Differences in ACEs, Resilience, Education Level, Likelihood of Employment and Impaired Days Once Employed
Associated with Growing up in Higher Community Capacity Places
For younger adults age 18 to 34, with a disability related functional impairment in 2009-10, among BRFSS 18-64 year old respondents











Bivariate Statistics

Correlation Matrix (all adults 18-64, BRFSS 2009-10)

Variables	Not empl. (0-1)	Days impair. (0-30)	Dis Index (0-3)	ACEs (0-8)	Adv.exp (1-6)	Int ACEs-adv.	Educ yrs	Resil. Index (0-12)	Age yrs (18-64)	Gender (male)	Income ($)	white (0,1)	No access (0-2)	Stigma (1-5)	Labor partic (1-4)
Not empl (0-1)	1.00	0.03	-0.07	-0.38	-0.17	0.28	0.05	0.06	-0.02	-0.06	0.31	-0.08	-0.11	0.00	-0.04
Days imp. (0-30)	0.03	1.00	-0.40	0.10	-0.34	0.21	0.05	-0.03	-0.08	0.22	0.07	-0.20	0.03	0.05	-0.05
Dis Index (0-3)	-0.07	-0.40	1.00	0.09	0.34	-0.30	-0.12	0.25	-0.23	0.19	0.16	0.12	0.03	-0.12	0.01
ACEs (0-8)	-0.38	0.10	0.09	1.00	0.27	-0.61	0.21	-0.12	-0.03	0.22	-0.34	0.02	0.06	-0.14	0.14
Adv.exp (1-6)	-0.17	-0.34	0.34	0.27	1.00	-0.78	-0.06	0.03	0.18	0.17	-0.08	0.09	0.15	-0.26	0.07
Int ACEs-adv.	0.28	0.21	-0.30	-0.61	-0.78	1.00	-0.03	0.13	-0.22	-0.15	0.32	-0.14	-0.06	0.28	-0.11
Educ yrs	0.05	0.05	-0.12	0.21	-0.06	-0.03	1.00	-0.14	-0.13	-0.07	-0.25	-0.06	0.15	-0.09	-0.02
Resilience ind.	0.06	-0.03	0.25	-0.12	0.03	0.13	-0.14	1.00	-0.17	0.03	0.03	0.19	0.00	-0.05	0.03
Age yrs (18-64)	-0.02	-0.08	-0.23	-0.03	0.18	-0.22	-0.13	-0.17	1.00	-0.06	-0.37	0.00	-0.07	0.00	0.02
Gender (male)	-0.06	0.22	0.19	0.22	0.17	-0.15	-0.07	0.03	-0.06	1.00	0.09	-0.15	0.22	0.12	-0.12
Income ($)	0.31	0.07	0.16	-0.34	-0.08	0.32	-0.25	0.03	-0.37	0.09	1.00	-0.25	0.22	0.06	-0.13
white (0,1)	-0.08	-0.20	0.12	0.02	0.09	-0.14	-0.06	0.19	0.00	-0.15	-0.25	1.00	-0.28	-0.02	-0.08
No access (0-2)	-0.11	0.03	0.03	0.06	0.15	-0.06	0.15	0.00	-0.07	0.22	0.22	-0.28	1.00	-0.07	-0.08
Stigma (1-5)	0.00	0.05	-0.12	-0.14	-0.26	0.28	-0.09	-0.05	0.00	0.12	0.06	-0.02	-0.07	1.00	-0.32
Labor partic. (1-4)	-0.04	-0.05	0.01	0.14	0.07	-0.11	-0.02	0.03	0.02	-0.12	-0.13	-0.08	-0.08	-0.32	1.00

Bivariate Statistics

Correlation Matrix (People with a Disability/Functional Impairment, age 18-64, BRFSS 2009-10))

Variables	Not empl. (0-1)	Days impair. (0-30)	Dis Index (0-3)	ACEs (0-8)	Adv.exp (1-6)	Int ACEs-adv.	Educ yrs	Resil. Index (0-12)	Age yrs (18-64)	Gender (male)	Income ($)	white (0,1)	No access (0-2)	Stigma (1-5)	Labor partic (1-4)
Not empl (0-1)	1.00	0.25	-0.29	-0.04	0.18	-0.24	0.07	0.12	0.16	0.08	0.13	-0.04	0.15	-0.05	0.08
Days imp. (0-30)	0.25	1.00	-0.59	0.21	0.08	-0.14	0.23	0.17	0.47	0.23	-0.15	-0.02	0.20	-0.17	-0.11
Dis Index (0-3)	-0.29	-0.59	1.00	-0.18	-0.38	0.38	0.08	-0.09	-0.44	-0.36	0.07	0.09	-0.22	0.07	0.16
ACEs (0-8)	-0.04	0.21	-0.18	1.00	0.43	-0.56	0.15	0.30	0.00	0.38	-0.18	0.25	0.14	-0.04	-0.26
Adv.exp (1-6)	0.18	0.08	-0.38	0.43	1.00	-0.95	-0.16	0.43	0.09	0.51	-0.01	0.14	0.41	-0.02	-0.25
Int ACEs-adv.	-0.24	-0.14	0.38	-0.56	-0.95	1.00	0.16	-0.38	-0.11	-0.53	0.03	-0.12	-0.42	0.01	0.24
Educ yrs	0.07	0.23	0.08	0.15	-0.16	0.16	1.00	0.01	0.03	-0.16	-0.18	0.10	0.22	-0.11	-0.08
Resilience ind.	0.12	0.17	-0.09	0.30	0.43	-0.38	0.01	1.00	-0.09	0.17	-0.34	0.05	0.17	0.10	-0.19
Age yrs (18-64)	0.16	0.47	-0.44	0.00	0.09	-0.11	0.03	-0.09	1.00	0.21	-0.26	-0.19	0.05	-0.06	-0.07
Gender (male)	0.08	0.23	-0.36	0.38	0.51	-0.53	-0.16	0.17	0.21	1.00	-0.11	0.00	0.07	-0.11	-0.19
Income ($)	0.13	-0.15	0.07	-0.18	-0.01	0.03	-0.18	-0.34	-0.26	-0.11	1.00	0.12	0.25	-0.21	0.14
white (0,1)	-0.04	-0.02	0.09	0.25	0.14	-0.12	0.10	0.05	-0.19	0.00	0.12	1.00	0.31	-0.10	-0.14
No access (0-2)	0.15	0.20	-0.22	0.14	0.41	-0.42	0.22	0.17	0.05	0.07	0.25	0.31	1.00	-0.09	-0.09
Stigma (1-5)	-0.05	-0.17	0.07	-0.04	-0.02	0.01	-0.11	0.10	-0.06	-0.11	-0.21	-0.10	-0.09	1.00	-0.05
Labor Partic. (1-4)	0.08	-0.11	0.16	-0.26	-0.25	0.24	-0.08	-0.19	-0.07	-0.19	0.14	-0.14	-0.09	-0.05	1.00

[i] Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., Howes, M.J, Normand, S-L.T., Manderscheid, R.W., Walters, E.E., Zaslavsky, A.M. (2003). Screening for serious mental illness in the general population *Archives of General Psychiatry*. 60(2), 184-189.

[ii] ibid

[iii] *Unpacking Prevention Capacity: An Intersection of Research-to-practice Models and Community-centered Models*; Paul Flaspohler et. al., American Journal of Community Psychology, 2008

[iv] Why are People Homeless?, National Coalition for the Homeless, July, 2009; http://www.nationalhomeless.org/factsheets/why.html

[v] ibid

[vi] Wilder Research Center, *Homeless in Minnesota 2003* 22 (February 2004); *see also* Kimberle Crenshaw, *Mapping the Margins: Intersectionality, Identity Politics and Violence Against Women of Color*, 43 Stan. L. Rev. 1241, 1246 n.13 (stating that one shelter serving women of color reported that nearly 85 percent of clients returned to abusive relationships because of their difficulties finding housing and employment).

[vii] Excerpts from *Why are People Homeless?,* National Coalition for the Homeless, July, 2009

[viii] A Developmental Approach to Complex PTSD: Childhood and Adult Cumulative Trauma as Predictors of Symptom Complexity; Marylene Cloitre, Judith Herman, et. al; *Journal of Traumatic Stress*, Vol. 00, No. 0, 2009, pp. 1–10

[ix] ibid

[x] ibid

[xi] Your PTSD and How It Affects Your Children – If You Think *You Can Hide Your PTSD From Your Children You Are Wrong;* Colleen M. Crary, M.A.; Fearless PTSD Support, 2011.

[xii] Welcome Home: How to Make a Difference in the Lives of Returning War Zone Veterans; Krista Goldstine-Cole for Washington Family Policy Council; 2005.

[xiii] *Targeting Health Disparities: A Model Linking Upstream Determinants to Downstream Interventions*; Sarah Gehlert et. al. 2008.